

VOYAGE PLAN

SECTION 1 - PILOT TO PILOT

M/V: Z O U R V A	Voy. No.: 01-L	Date: 18 SEPT. 2014
-------------------------	-----------------------	----------------------------

1. General Information

Departure Port	BASRAH, IRAQ	Departure Date	
Port of Destination	LOOP, U.S.A.	ETA	
Sea Passage Commenced	19/09/2014 19:30 Hrs	Sea Passage Ended	
Pre-calculated Distance	13505 MLS.	Actual Distance Run	
Estimated duration of Sea Passage	45DAYS 38MINS.	Actual duration of Sea Passage	
Covering Load Line Zone (1)	TROPICAL ZONE	(2)	SUMMER ZONE
Bunkers required for voyage (Including Tank Cleaning, Cargo Heating, etc.)			
F.O./ L.S.F.O (met. tones)	3324 / 52	Diesel Oil (met.tones)	0.0
DRAFTS / AIR DRAFTS			
Maximum Draft permitted at Departure Port	21.00 mtrs	Maximum Draft permitted at Arrival Port	22.66 mtrs
Air Draft at Departure Port	45.54 mtrs	Air Draft at Arrival Port	45.43 mtrs
Sailing Draft (fwd)	20.16 mtrs	(aft)	20.16 mtrs
Maximum permissible draft during sea passage (fwd)	21.00 mtrs	(aft)	21.00 mtrs
Arrival Draft (fwd)	20.35 mtrs	(aft)	20.35 mtrs
UNDER KEEL CLEARANCE			
Departure Port	6.98 mtrs		
During Voyage the minimum U.K.C. will be observed at (Lat.)	29 33.4 N	(Long.)	048 54.0 E
		U.K.C.	1.74 m
Arrival Port	mtrs		

2. Voyage Plan Appraisal

	YES	NO	REQUESTED
Required Charts Available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Required Sailing Directions Available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Required Lights Lists Available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Required Notices to Mariners Available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other Nautical Publications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Prepared by 2 nd Officer	PASTORFIDE ARIEL/ Name / Signature
Verified / Acknowledged by Chief Officer	VEROUCHIS CHRISTOS/ Name / Signature
Acknowledged by 2 nd or 3 rd Officer	BARTOLOME JOVENCIO/ Name / Signature
Acknowledged by 2 nd or 3 rd Officer	CAOILI RONNEL/ Name / Signature
Approved by Master	PAPADOPOULOS P./ Name / Signature

Check Lists	Issue Date	: 11.2008
Issued by: S & Q Dept.	Revision No./ Date	: 2 / 02.2011
Checklist: SQ/09	Page	: 1 of 28

3. Charts, Nautical & Miscellaneous Publications to be used for the passage

B.A. CHARTS								
No.	Edition	Last Correction	No.	Edition	Last Correction	No.	Edition	Last Correction
GB45124A	12/09/12	(6)17-07-14	GB200760	22/07/10	(2)21-10-13	GB201220	20/02/13	(1)01-07-13
GB501265	12/09/12	(3)30-08-12	ZA104700	31/08/10	(3)22-10-13	US2EC01M	25/10/13	(3)29-07-14
GB301235	30/08/12	(5)03-01-14	ZA100030	03/11/08	(13)03-01-12	CU311422	27/03/13	(2)26-11-13
GB302884	26/09/12	(1)29-04-14	ZA200040	20/04/11	(40)14-08-14	GB104401	14/01/14	NIL
GB202847	06/02/13	NIL	ZA300080	28/05/08	(16)16-01-14	US2GC09M	24/10/14	(5)12-08-14
GB302883	26/09/12	NIL	ZA300060	11/07/07	(18)26-01-14	US3GC04M	27/08/13	(3)17-07-14
GB202837	02/06/14	NIL	ZA200030	26/04/11	(11)10-06-14	US4LA32M	04/10/13	(16)28-08-14
GB302887	03/04/13	(3)11-02-14	ZA100020	23/12/08	(7)10-07-14	US5LA26M	15/07/14	(2)27-08-14
GB302441	07/05/13	(1)11-02-14	ZA300050	10/10/07	(8)10-03-14	US3GC03M	27/08/13	(20)11-09-14
GB303174	12/09/13	(2)28-04-14	ZA300040	10/07/06	(40)14-08-14	GB800001	03/04/14	(23)11-09-14
GB303172	02/10/13	NIL	ZA200020	22/11/10	(11)14-08-14			
GB303171	02/10/13	(1)28-04-14	ZA200010	10/02/10	(7)10-07-14			
GB303520	12/09/12	(4)02-10-13	GB100010	01/12/11	(2)5-11-12			
GB403723	19/09/12	(1)18-03-13	GB104204	18/08/10	(1)05-08-11			
GB202851	06/11/13	(2)04-03-14	GB104203	10/06/11	(7)24-12-13			
IN121MTM	04/06/13	(4)08-08-14	GB104215	01/06/11	(8)24-12-13			
GB200707	24/06/13	NIL	GB104202	21/05/13	(1)24-12-13			
IN177005A	21/09/12	(3)29-04-14	FR276250	27/03/10	(17)28-08-14			
GB104703	14/08/14	NIL	GB104216	20/03/14	(1)01-07-14			
GB104702	31/05/12	(6)24-12-13	BR221020	09/08/11	(13)15-08-14			
FR2274880	21/03/14	NIL	BR221010	14/03/12	(4)05-08-14			
FR232010	02/04/05	(7)06-03-14	FR274750	18/09/10	(21)14-08-14			
FR332010	07/05/05	(20)15-04-14	GB201966	01/05/10	NIL			
GB353210	28/06/12	(2)20-02-14	GB383720	30/07/08	(2)10-03-14			
GB45321A	29/10/10	(6)17-07-14	GB20486A	06/11/13	NIL			
GB104701	15/08/14	NIL	GB104402	14/01/14	(20)07-08-14			
GB403723								
No.	Edition	Sup/nt	3No.	Edition	Sup/nt	No.	Edition	Sup/nt
NP281(1)	2013/14		NP80	2013/14		NP247(1)	2012	
NP281(2)	2013/14		NP82	2013/14		NP247(2)	2012	
NP282	2014/15		NP63	2013		NP100	2009	
NP283(1)	2013/14		NP38	2013		NP136	2004	
NP283(2)	2013/14		NP39	2011		NP231	2012	
NP284	2013/14		NP3	2013		NP232	2014	
NP285	2014/15		NP2	2011		NP5012	2012	
NP286(4)	2013/14		NP5	2011		NP314(14)	2014	
NP286(8)	2013/14		NP7A	2013		NP735	2012	
NP286(7)	2013/14		NP69A	2012		NP5012	2012	
NP77	2013/14		NP203(3)	2012				

MISCELLANEOUS PUBLICATIONS	
Title	Edition
SHIP ROUTEING	2010
GUIDE TO PORT ENTRY	2013/14
NORRIES NAUTICAL TABLE	2007
BRIDGE PROCEDURES GUIDE	2007
BRIDGE RESOURCE MANAGEMENT	1998
BRIDGE TEAM MANAGEMENT	2004
RAPID SIGHT REDUCTION TABLES FOR NAVIGATION AP 3270/NP303 (VOL.1)	2012
RAPID SIGHT REDUCTION TABLES FOR NAVIGATION AP 3270/NP303 (VOL.2 & 3)	2010

Check Lists	Issue Date	: 11.2008
Issued by: S & Q Dept.	Revision No./ Date	: 2 / 02.2011
Checklist: SQ/09	Page	: 2 of 28

4. Voyage Planning – Way Points

Chart No. Used	W/P No.	Position		Course Next W/P(T)	Dist. Next W/P	Est. Average Speed	Time to Next W/P	Position Fixing Frequency	Position Fixing Method (Primary)	Position Fixing Method (Secondary)
		Lat.	Long.							
GB4 5124A	1	29 39.40N	048 49.90E	148	1.90	5.7 KTS	20 MINS	5MINS	VISUAL/RADAR	DGPS
GB4 5124A	2	39 37.70N	048 50.90E	148	5.00	5.7 KTS	21MINS	5MINS	VISUAL/	DGPS
GB4 5124A	3	29 36.00N	048 52.13E	116	1.10	2.0 KTS.	33MINS	5MINS	VISUAL/	DGPS
GB3 02884	4	29 35.39N	048 53.31E	BASRAH ANCHORAGE DISTANCE = 5.0 MLS						
GB51 24A	4	29 35.39N	048 53.31E	202	0.59	3.0KTS	12MINS	5MINS	VISUAL/RADAR	DGPS
GB51 24A	5	29 34.80N	048 52.99E	148	1.73	5.0KTS	21 MINS	5MINS	DGPS	CELESTIAL
GB51 24A	6	29 33.40N	04854.00E	167	7.10	7.0KTS	1H2MINS	5MINS	DGPS	CELESTIAL
GB3 02884	7	29 26.50N	048 55.80E	152	6.10	7.0 KTS	51MINS	5MINS	DGPS	CELESTIAL
GB2 02837	8	29 21.00N	048 59.10E	108	3.60	5.0 KTS	44MINS	5MINS	DGPS	CELESTIAL
GB2 02837	9	29 19.90N	049 02.90E	111	30.50	12.0 KTS.	2H26M	5/15 MINS	RADAR	DGPS
GB2 02887	10	29 09.00N	049 35.50E	137	135.0	12.5 KTS	10H48M	30MIN S	VISUAL/RADAR	DGPS
GB3 02441	11	27 29.50N	051 18.90E	118	128.7	12.5 KTS	10H18M	30/10 MINS	VISUAL/RADAR	DGPS
GB3 03174	12	26 28.80N	053 26.00E	107	60.90	12.5 KTS.	4H52M	15MIN S	RADAR	DGPS
GB3 03172	13	26 11.50N	054 31.00E	096	42.15	12.5 KTS	3H22M	15MIN S	RADAR	DGPS
GB3 03172	14	26 06.80N	055 17.60E	071	11.40	12.5 KTS	55MINS	5MINS	VISUAL/RADAR	DGPS
GB3 03172	15	26 10.50N	055 29.50E	070	29.60	12.5 KTS.	2H22M	5MINS	VISUAL/RADAR	DGPS
GB3 03172	16	26 20.50N	056 00.50E	062	22.60	12.5 KTS	1H49M	15MIN S	VISUAL/RADAR	DGPS
GB3 03172	17	26 31.00N	05622.80E	067	5.50	12.5 KTS	26MINS	10MIN S	VISUAL/RADAR	DGPS
GB3 03172	18	26 33.30N	056 28.40E	090	3.60	12.5 KTS	17MINS	5MINS	VISUAL/RADAR	DGPS
GB3 03171	19	26 33.30N	056 32.50E	146	6.50	12.5 KTS	31MINS	5MINS	VISUAL/RADAR	DGPS
GB3 03171	20	26 28.00N	056 36.50E	180	71.5	12.5 KTS	5H43M	30MIN S	RADAR	DGPS
GB3 03171	21	25 16.20N	056 36.50E	242	2.20	4.0 KTS	33MINS	5MINS	RADAR	DGPS
GB2 02851	22	25 15.00N	056 34.00E	FUJAIRAH ANCHORAGE "B" DISTANCE 574 MLS.						
GB2 02851	22	25 15.00N	056 34.00E	119	147.3	12.5 KTS	11H47M	1HR	DGPS	CELESTIAL
IN121 MTM	23	24 04.50N	058 56.00E	126	416.7	12.5 KTS	33H20M	1HR	DGPS	CELESTIAL

Check Lists
 Issued by: S & Q Dept.
 Checklist: SQ/09

Issue Date : 11.2008
 Revision No./ Date : 2 / 02.2011
 Page : 3 of 28

Chart No. Used	W/P No.	Position		Course Next W/P(T)	Dist. Next W/P	Est. Average Speed	Time to Next W/P	Position Fixing Frequency	Position Fixing Method (Primary)	Position Fixing Method (Secondary)
		Lat.	Long.							
GB2 00707	24	20 00.00N	065 00.00E	160	857.7	12.5 KTS	68H37M	1HR	DGPS	CELESTIAL
GB1 04703	25	06 30.00N	070 00.00E	187	992.5	12.5 KTS	79H24M	1HR	DGPS	CELESTIAL
GB1 04702	26	10 00.00S	068 00.00E	226	844.5	12.5 KTS	67H34M	1HR/10MIN	DGPS	CELESTIAL
GB3 53210	27	19 50.50S	057 33.00E	206	956	12.5 KTS	76H29M	15MIN S	DGPS	CELESTIAL
GB4 5321A	28	19 59.10S	057 28.50E	189	8.40	8.0KTS	01H03M	5MINS	VISUAL/RADAR	DGPS
GB4 5321A	29	20 07.50S	057 27.10E	PORT LOUIS MAURITIUS, DISTANCE = 3276 MLS.						
GB4 5321A	29	20 07.50S	057 27.10E	246	3.80	12.5 KTS	18MINS	15M	VISUAL/RADAR	DGPS
FR2 3210	30	20 09.00S	057 23.50E	225	109	12.5 KTS	8H43M	15/30M /1HR	VISUAL/RADAR	DGPS/CELESTIAL
GB10 4101	31	21 27.00S	056 02.00E	241	548.8	10.0 KTS	43H54M	1HR	DGPS	CELESTIAL
GB14 700	32	25 54.00S	047 19.00E	244	1213.7	8.0 KTS	97H6M	1HR	DGPS	CELESTIAL
ZA20 0030	33	34 47.00S	026 16.00E	270	194.9	12.5 KTS	15H36M	1HR	DGPS	CELESTIAL
ZA30 0060	34	34 46.00S	022 19.50E	262	77.7	12.5 KTS	6H13M	1HR	DGPS	CELESTIAL
ZA30 0050	35	34 57.00S	020 46.00E	243	42.2	12.5 KTS	3H23M	1HR	DGPS	CELESTIAL
ZA30 0040	36	35 16.00S	020 00.00E	291	99.3	12.5 KTS	7H56M	1HR	DGPS	CELESTIAL
ZA10 0010	37	34 41.00S	018 07.00E	304	3373.4	12.5 KTS	269H52M	1HR	DGPS	CELESTIAL
FR27 6250	38	03 29.00S	032 05.00E	298	1919.7	12.5 KTS	153H35M	1HR	DGPS	CELESTIAL
FR27 4750	39	11 40.00N	060 27.00W	270	91.3	12.5 KTS	7H18M	1HR	DGPS	CELESTIAL
GB20 1966	40	11 40.00N	062 00/00W	296	949.5	12.5 KTS	75H58M	1HR	DGPS	CELESTIAL
GB28 1600	41	18 40.00N	076 42.00W	282	208.4	12.5 KTS	16H40M	1HR	DGPS	CELESTIAL
GB10 4402	42	19 24.00N	080 17.00W	294	305.4	12.5 KTS	24H26M	1HR	DGPS	CELESTIAL
US2G C09M	43	21 28.00N	085 14.50W	326	309.2	12.5 KTS	24H44M	1HR	DGPS	CELESTIAL
US2G C09M	44	25 45.37N	088 22.55W	326	145	12.5 KTS	11H36M	1HR	DGPS	CELESTIAL
US3G C04M	45	27 46.00N	089 53.00W	359	50.4	12.5 KTS	4H19M	1HR	DGPS	CELESTIAL
US5L A41M	46	28 36.50N	089 54.50W	007	11.4	12.5 KTS	55MINS	5MINS	VISUAL/RADAR	RADAR
US5L A41M	47	28 48.00N	089 53.00W	319	2.0	8.0 KTS	15MINS	5MINS	VISUAL/RADAR	RADAR
US5L A41M	48	28 49.50N	089 54.50E	350	2.60	2.0 KTS	39MINS	5MINS	VISUAL/RADAR	RADAR
	49	28 52.00N	089 55.00W	LOOP ANCHORAGE TOTAL DISTANCE 13508 MLS						

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 4 of 28

5. Danger Points (No-Go Areas)

Chart No.	Position of Danger		How to Avoid
	Latitude	Longitude	
GB45124A	BASRAH (KHAWR AL KAFKA) BUOYED CHANNEL		ALL NO GO AREAS SHADED WITH DASHES.TAKE VESSEL POSITION EVERY 5 MINS.BY VISUAL OR RADAR AND COMPARE WITH GPS POSITION. USED PARALLEL INDEX LINE AND TAKE NECESSARY PRECAUTION DUE TO EFFECT OF THE CURRENT.
GB302884	SOROOSH OILFIELD/ABOOZAR OILFIELD		ALL NO GO AREAS ARE SHADED WITH DASHES , ALWAYS TAKE POSITION IN REGULAR INTERVAL EVERY 10 MINS. BY VISUAL/RADAR OR DGPS. KEEP ON TRACK USING PARALLEL INDEXING. ACTIVELY
GB302887	KALAT TO JAZIREYE LAVAN		ALL NO GO AREAS ARE SHADED WITH DASHES , ALWAYS TAKE POSITION IN REGULAR INTERVAL EVERY 30 MINS. BY VISUAL/RADAR OR DGPS.KEEP ON TRACK USING PARALLEL INDEXING. ACTIVELY SHOWN IN THE CHART. CAUTION WITH THE EFFECT OF CURRENT.
GB302887	JAZIREYE LAVAN TO JAZIREYE FORUR		ALL NO GO AREAS ARE SHADED WITH DASHES , ALWAYS TAKE POSITION IN REGULAR INTERVAL EVERY 5 OR 10 MINS. BY VISUAL/RADAR/DGPS ACTIVELY SHOWN IN THE CHART. KEEP ON TRACK USING PARALLEL INDEXING. CAUTION WITH THE EFFECT OF CURRENT. CAUTION ON A WELL IN POSITION <u>LAT 26 30.08N LON 053 27.5E</u> MARKED AS NO GO AREA.TAKE POSITION 10 MINS INTERVAL BY RADAR / GPS. KEEP THE VESSEL ON TRACK FOLLOWING CHARTED COURSE LINE.
GB302441	TSS TUNB E-FORUR		ALL NO GO AREAS ARE SHADED WITH DASHES , ALWAYS TAKE POSITION IN REGULAR INTERVAL EVERY 5 OR 15 MINS. BY VISUAL/RADAR OR DGPS. KEEP ON TRACK USING PARALLEL INDEXING. ACTIVELY SHOWN IN THE CHART. CAUTION WITH THE EFFECT OF CURRENT.
GB303172	STRAIT OF HORMUZ		ALL NO GO AREAS ARE SHADED WITH DASHES , ALWAYS TAKE POSITION IN REGULAR INTERVAL EVERY 05 MINS. BY VISUAL/RADAR AND CONFIRM BY DGPS. KEEP ON TRACK AND USE PARALLEL INDEXING
FR274880	MASCARINE PLATEAU AND SOUDAN BANK		OBSTRUCTIONS SHOALER THAN THE RANGE OF SORROUNDING LIES ON THIS AREA,IT IS SHADED WITH DASHES AS NO GO AREAS, KEEP THE VESSEL ON TRACK FOLLOWING CHARTED COURSE LINE AND TAKE POSITION EVERY 10 MINS.
GB200760	SOUTH OF MADAGASCAR		THIS AREA SHOWING A CHARTED DEPTH OF 9.0MTRS. AND 15.8 MTRS. IT IS SHADED WITH DASHES AS NO GO AREAS. KEEP THE VESSEL ON COURSE LAY OUT ON THE CHART.
US3GC04M	SAFETY FAIRWAY RECOMMENDED ROUTE BOUND TO LOOP		BOTH SIDES OF RECOMMENDED ROUTE ARE SHADED WITH DASHES AND MARKED AS NO AREAS KEEP THE VESSEL ON COURSE LAY OUT ON THE THE CHART AND CHECK VESSEL POSITION EVERY 5 MINUTES .

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 5 of 28

6. Contingency Anchorages

Chart No.	Position		Supporting Information
	Latitude	Longitude	
GB45124A	29 36.50N	048 52.70E	EM'CY ANCHORAGE IN THE THE BASRAH OIL TERMINAL APPROACHES BUOYED CHANNEL. IN THIS POSITION SHOWING A CHARTED DEPTH OF BETWEEN 25.5 MTRS. TO 28 MTRS.
GB303172	26 26.70N	056 15.60E	EM'CY ANCHORAGE IN THE APPROACH OF TSS IN THE STRAIT OF HORMUZ
US5LA41M	28 52.00N	089 55.00W	LOOP ANCHORAGE

7. Aborts & Contingencies

Chart No.	Position		Supporting Information
	Latitude	Longitude	
GB45124A	29 35.40N	048 52.60E	ABORT LINE.
US5LA41M	28 52.00N	089 55.00W	ABORT LINE LOOP ANCHORAGE

Check Lists
 Issued by: S & Q Dept.
 Checklist: SQ/09

Issue Date : 11.2008
 Revision No./ Date : 2 / 02.2011
 Page : 6 of 28

8. Other Supporting Information relative to the Passage

Description

GENERAL

- 1) PASSAGE PLAN PREPARED BASE ACCORDING F.I.M CHAPTER 4, **CIRCULAR LETTER NO.46, COMPANY VOYAGE PLANNING, AND BRIDGE TEAM PRACTICAL GUIDE** AS REFERENCE
- 2) CONCLUDING IT IS CRUCIAL TO EMPHASIZE THE IMPORTANCE AND VALUE OF BRIDGE TEAM WORK AS THE ONLY METHOD TO PREVENT ERRORS AND ACCIDENTS
- 3) AN OVERALL ASSESSMENT OF THE INTENDED PASSAGE SHOULD BE MADE, WHEN ALL RELEVANT INFORMATION HAVE BEEN GATHERED BY THE MASTER, IN COOPERATION WITH THE NAVIGATING OFFICER AND THE OTHER DECK OFFICERS, WHO WILL BE INVOLVED (BRIDGE TEAMWORK). THIS ASSESSMENT WILL PROVIDE THE MASTER AND HIS BRIDGE TEAM WITH A CLEAR AND PRECISE INDICATION OF ALL AREAS IN WHICH IT WILL BE POSSIBLE TO NAVIGATE SAFELY TAKING INTO ACCOUNT THE CALCULATED DRAUGHT OF THE SHIP, HER EQUIPMENT AND ANY OTHER CIRCUMSTANCES.
- 4) AFTER THIS A BALANCED JUDGMENT OF THE MARGINS OF SAFETY WHICH MUST BE ALLOWED IN THE VARIOUS SECTIONS OF THE INTENDED PASSAGE CAN BE MADE, AGREED AND UNDERSTOOD BY ALL CONCERNED (BRIDGE TEAMWORK).
- 5) THE NAVIGATION OFFICER HAVING MADE THE FULLEST POSSIBLE APPRAISAL OF ALL AVAILABLE INFORMATION ON BOARD RELATING TO THE INTENDED PASSAGE, THE NAVIGATING OFFICER CAN NOW ACT UPON THE MASTER'S INSTRUCTIONS TO PREPARE A DETAILED VOYAGE PLAN. THE DETAILED PLAN SHOULD EMBRACE THE WHOLE PASSAGE FROM BERTH TO BERTH, AND INCLUDE ALL WATERS WHERE A PILOT WILL BE ON BOARD.
- 6) WHILST AN OCEAN PASSAGE MAY INVOLVE MINIMAL PREPARATION IN TERMS OF COURSES, DISTANCES AND "WAY POINTS", THE NAVIGATION OF COASTAL AND PILOTAGE WATERS REQUIRES CONCENTRATED PREPARATION.
- 7) THE CLOSE AND CONTINUOUS MONITORING OF THE VESSEL'S PROGRESS ALONG THE PREPLANNED ROUTE IS ESSENTIAL FOR THE SAFE CONDUCT OF THE PASSAGE. IF THE OFFICER ON WATCH IS EVER IN ANY DOUBT AS TO THE POSITION OF THE VESSEL OR THE MANNER IN WHICH THE PASSAGE IS PROCEEDING HE SHOULD IMMEDIATELY CALL THE MASTER AND IF NECESSARY, TAKE WHATEVER ACTION HE MAY THINK NECESSARY FOR THE SAFETY OF THE VESSEL.
- 8) THE PERFORMANCE OF NAVIGATIONAL EQUIPMENT SHOULD BE CHECKED PRIOR TO SAILING, PRIOR TO ENTERING RESTRICTED OR HAZARDOUS WATERS AND AT REGULAR AND FREQUENT INTERVALS AT OTHER TIMES THROUGHOUT THE PASSAGE.
- 9) COMPLETED CHECK LISTS NEEDED TO BE COMPLETED DURING VOYAGE MUST BE ATTACHED TO THE ACTIVE "VOYAGE PLAN"
- 10) IT IS UNLIKELY THAT EVERY DETAIL OF A PASSAGE WILL HAVE BEEN ANTICIPATED,
- 11) PARTICULARLY IN PILOTAGE WATER. THIS, IN NO WAY DETRACTS FROM THE REAL VALUE OF THE PLAN, WHICH IS TO MARK OUT IN ADVANCE WHERE THE SHIP MUST NOT GO AND THE PRECAUTIONS WHICH MUST BE TAKEN TO ACHIEVE THAT END.
- 12) PILOTAGE: PROCEDURES LISTED IN FIM CHAPTER 4 SECTION 8 "PILOTING BRIDGE RESOURCE MANAGEMENT MANUAL AND WATCH POLICY AND PROCEDURES MANUAL ARE STRICTLY FOLLOWED THE PRESENCE OF A PILOT ON BRIDGE IS SOLELY IN ADVISORY CAPACITY AND NEVER RELIEVES THE MASTER OR THE BRIDGE OOW OF RESPONSIBILITY FOR SAFE NAVIGATION OF THE VESSEL. BRIDGE WATCH COMPOSITION MUST COMPLY WITH REQUIREMENTS DESCRIBED IN BRIDGE RESOURCE MANAGEMENT. ALTHOUGH THE PILOT'S PRIMARY DUTY IS TO PROVIDE ACCURATE INFORMATION WITH REGARD TO THE SHIP'S SAFE NAVIGATION, THE RESPONSIBILITY FOR SAFE NAVIGATION AND THE CONN RESTS ALWAYS WITH THE SHIP'S MASTER OR THE OOW WHO MUST MONITOR THE PILOT'S ORDERS AND INTERVENE IF THESE ARE CONSIDERED INCONSISTENT WITH THE RULES OF SAFE NAVIGATION. MONITOR CONTINUOUSLY THE PILOT'S ORDERS AND DIRECTIONS AND ENSURE THAT THEY ARE CONSISTENT WITH THE AGREED PASSAGE PLAN. IF THE BRIDGE TEAM CONSIDERS THAT PILOT'S ORDERS ARE IMPROPER OR ERRONEOUS THEN THE MASTER MUST INTERVENE IN ORDER TO SECURE VESSEL'S SAFETY.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 7 of 28

THE FOLLOWING SHOULD BE MARKED ON THE CHART, WHERE IT ENHANCES SAFE NAVIGATION

- 1) SAFE DISTANCE OFF:
 - A. 10 N.M BALLAST VOYAGE
 - B. 10 N.M CARRYING NON PERSISTING
 - C. 25 N.M CARRYING PERSISTING OIL
- 2) METHODS AND FREQUENCY OF POSITION FIXING;
 - A. WHILE THE SHIP IS OUT OF ANY FIX OBJECTS TARGET, (ISLAND, BEACON ETC.) WE USED THE GPS AS PRIMARY AND CELESTIAL OBSERVATION AS SECONDARY METHODS OF FIXING POSITION AS WEATHER PERMIT.
 - B. ONE (1) HR POSITION FIXING FREQUENCY SHOULD BE FOLLOWED WHEN NAVIGATING IN OPEN SEA.
 - C. AS THE SHIP APPROACH THE COAST THE PRIMARY USE FOR FIXING METHOD WILL BE BY VISUAL OR RADAR BEARING AND DISTANCES. SECONDARY IS THE GPS POSITION.
 - D. DURING ANCHORING FIVE (5) MINUTES INTERVAL OF FIXING TO BE FOLLOWED, WHEN NAVIGATING IN COASTAL WATERS, POSITION FIXING IS 10-15-20- OR 30 MINUTES, DEPENDING OF NO GO AREAS DISTANCE FROM THE SHIP TRACK,
 - E. WITH PILOT ON BOARD BERTHING, UN-BERTHING AND TRANSIT INTO THE STRAIT, FIVE MINUTES OF FIXING POSITION SHOULD BE MAINTAINED.
- 3) NO-GO AREAS: ALL CHARTED DEPTH OF LESS THAN THE SHIP'S DRAUGHT PLUS THE UNDER KEEL CLEARANCE REQUIRED BY THE COMPANY.
 - A. 20% UKC FOR OCEAN PASSAGE, OF THE DEEPEST DRAFT
 - B. 15% UKC FOR THE FAIRWAYS, OF THE DEEPEST DRAFT
 - C. 10% UKC FOR INSIDE PORT AND AT SBM OF THE DEEPEST DRAFT
 - D. CAN NOT BE LESS THAN TWO (2) FEET WHEN NAVIGATING IN CONFINED / RESTRICTED WATERS, NARROW CHANNELS AND INLAND WATER.
 - E. NOT LESS THAN ONE (1) FOOT WHEN ALONGSIDE TERMINALS / PIERS / JETTIES
 - F. WHERE THE VESSEL IS REQUIRED BY OPERATIONAL CONSIDERATIONS TO REDUCE U.K.C BELOW THE VALUES STATED ABOVE (DEPENDING ON THE NAVIGATING CIRCUMSTANCES IT WILL BE A CASE BY CASE STUDY), THE MASTER MUST TAKE FULL ACCOUNT OF THE FACTORS LISTED ABOVE WHICH GOVERN DETERMINATION OF A MINIMUM U.K.C. AND CONSIDER A LESSER UNDER KEEL CLEARANCE
- 4) ALL MANUALLY ENTERED USER CHART DATA MUST BE ENTERED IN RED IN ORDER TO AVOID A MISINTERPRETATION AS ENC/SENC CORRECTION DATA WHICH IS DISPLAYED IN ORANGE.
- 5) **CHART LAYER A** AS A COMPANY STANDARD THE FOLLOWING STATIC INFORMATION FOR A VOYAGE MUST BE ENTERED AND DISPLAYED ON CHART LAYER A TO ENHANCE SAFETY. (REDUNDANT INFORMATION IN ECDIS SHOULD BE AVOIDED)
 - A. FOR EXAMPLE LEADING LIGHTS AND SECTOR LIGHTS):
 - B. PROMINENT NAVIGATION AND RADAR MARKS
 - C. NO GO AREAS
 - D. LANDFALL TARGETS AND LIGHTS
 - E. POSITIONS WHERE THE ECHO SOUNDER SHOULD BE ACTIVATED
 - F. SAFE DISTANCE OFF
 - G. VTS AND REPORTING POINTS ETC.
 - H. OBSTRUCTIONS AND HAZARDS TO NAVIGATION.
 - I. SECA AREAS
 - J. PARALLEL INDEXING
 - K. CLEARING LINES AND BEARINGS
 - L. TRANSITS, HEADING MARKS AND LEADING LINES
 - M. CROSSING AND HIGH DENSITY TRAFFIC AREAS TO BE EXPECTED
 - N. CHANGES IN MACHINERY STATUS
 - O. CONTINGENCY PLAN / EMERGENCY ANCHORAGE
 - P. ABORT POSITIONS
 - Q. CALLING OF MASTER
 - R. CALLING OF ENGINE
 - S. ANY OTHER INFORMATION RELEVANT TO THIS VOYAGE IN GENERAL.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 8 of 28

- 6) **CHART LAYER B:** AS A COMPANY STANDARD THE FOLLOWING DYNAMIC INFORMATION FOR A SINGLE VOYAGE MUST BE MARKED ON CHART LAYER B WHERE IT ENHANCES SAFETY:
- 7) TRADITIONAL FORMS OF POSITION FIXING SHOULD NEVER BE OVERLOOKED OR REPLACED WHEN USING ECDIS; THESE CAN INCLUDE BUT ARE NOT LIMITED TO:
- VISUAL BEARINGS
 - RADAR RANGES AND BEARINGS USING VARIABLE RANGE MARKERS (VRMS) AND ELECTRONIC BEARING LINES
 - (EBL)
 - TRANSIT BEARINGS AND CLEARING RANGES
 - RUNNING FIXES
 - FIXING BY A LINE OF SOUNDINGS
 - HORIZONTAL SEXTANT ANGLES (HSAS)
- 8) **ALARM SETTINGS:**
- SHALLOW WATER:** VALUE MUST BE LESS THAN SAFETY CONTOUR
 - SAFETY CONTOUR:** VALUE SHOULD BE SET AS FOLLOWS: STATIC DRAFT + DYNAMIC DRAFT + VERTICAL CHART INACCURACY
 - SAFETY DEPTH** VALUE SHOULD BE SET AS FOLLOWS: SAFETY CONTOUR
 - VALUE PLUS 10% DEPENDING ON THE NAVIGATIONAL AREA AND THE REVAILING CONDITIONS THE MASTER IS REQUIRED TO SPECIFY THE ALARM SETTINGS TO ALL NAVIGATORS.
 - DEEP WATER:** VALUE MUST EXCEED THE SAFETY CONTOUR
- 9) **SAFETY FRAME:** THE SAFETY FRAME VALUE HAS TO BE CHANGED IN ACCORDANCE TO THE SEA AREA OF THE VESSEL. IN ORDER TO AVOID ALARM FATIGUE AND ASSURE AN EARLY WARNING THE VALUES HAVE TO BE ADOPTED DYNAMICALLY DEPENDING ON THE SEA AREA.
- HARBOUR AREA:** 0.01 NM ON BOTH SIDES, 1 MINUTE AHEAD
 - NARROW CHANNEL:** 0.05 NM ON BOTH SIDES
 - APPROACH AREA:** 0.1 NM ON BOTH SIDES
 - OPEN OCEAN:** 1 NM ON BOTH SIDES
- 10) **LOOK AHEAD VECTOR:** MUST ALWAYS BE SET AS FOLLOWS
- HARBOUR AREA:**, 1 MINUTE AHEAD
 - NARROW CHANNEL:** 3 MINUTES AHEAD
 - APPROACH AREA:** 6 MINUTES AHEAD
 - OPEN OCEAN:** 18 MINUTES AHEAD

VOYAGE ALARM SETTINGS	
SHALLOW WATER	21.00 MTRS.
SAFETY CONTOUR	22.00 MTRS.
SAFETY DEPTH	24.00 MTRS.
DEEP WATER	25.00 MTRS.

BASRAH OIL TERMINAL

GENERAL OVERVIEW: BASRAH OIL TERMINAL IS A DEEP SEA TANKER TERMINAL LOCATED 10 KM S OF THE KHOR AL AMAYA TERMINAL. TWO PLATFORMS; A WITH BERTH NO 1 AND NO 2 AND B WITH BERTHS NO 3 AND 4. BERTHS 1,2 AND 4 CAN ACCOMMODATE TANKERS RANGING FROM 35,000 – 350,000 DWT AND BERTH 3 TANKERS FROM 85,000-350,000 DWT. THE TOTAL LENGTH OF THE STRUCTURE IS 975 METERS AND THE WIDTH AT THE CENTER IS 107 METERS. 2 SPMS CAN ACCOMMODATE TANKERS RANGING FROM 35,000-350,000 DWT. FOUR (4) BERTHS, BRIDGES BETWEEN BERTHS ARE OF LATTICE TYPE AND PLATFORMS IN CHECKER PLATE.

WEATHER: WIND SPEED VARIES UP TO A MAXIMUM OF APPROX. 50 KNOTS. GENERAL DIRECTION NW OR SE. NO BERTHING ACTIVITIES WHEN WIND EXCEEDS 15 KNOTS.

SEA AND WAVES: IN WINTERTIME WITH S, SE AND SW WINDS HEIGHTS UP TO 4 METERS

NAVIGATION INFORMATION: FOURTEEN (14) LIGHTED BUOYS DEFINE THE DEEP-WATER CHANNEL AT THE 69 FT. / 21 METER DEPTH CONTOURS. BUOYS ARE BATTERY POWERED WITH QUICK FLASH CHARACTERISTICS WITH VISIBILITY OF 1 NM

NOTE THAT BUOYS 4, 6, 9 AND 10 ARE MISSING. BUOY 5,7 AND 11 HAS NO TOP MARKS

ANCHOORAGE: THERE ARE TWO ANCHORAGE "A" AND "B" WHICH ARE MARKING IN BA CHART 1265

TIDAL RANGE: TIDAL FLOW AVERAGES APPROXIMATELY 1.5KTS WITH THE FLOOD RUNNING 285 DEG AND EBB RUNNING 105 DEG. TIDAL HEIGHT VARIES FROM 1.8MTRS – 3.75MTRS.

PILOT: COMPULSORY FOR ALL INWARD AND OUTWARD TANKERS. PILOTS ARE AVAILABLE 24/7 AT THE TERMINAL. PILOT BOARDS AND LEAVES AT BUOY NO. 14.

TUGS: THREE TUGS AVAILABLE. SHARK 2, ZAHRAA & CHALLENGER

COMMUNICATION:

1) PILOTS AND TERMINAL: VHF CH. 16, 12, 14

2) MARITIME SECURITY FORCES: VHF CH 16

DEPTHS LIMITATIONS: THE LOADING STRUCTURE HAS TWO PLATFORMS; EACH PLATFORM HAS TWO LOADING BERTHS. THE STRUCTURE, WHICH IS 975M LONG AND 107M WIDE, IS CAPABLE OF ACCOMMODATING TANKERS OF 35,000 TO 350,000 DWT. VESSELS UP TO 366M LONG, WITH A DRAFT OF 21M, CAN DEPART THE TERMINAL BY DAY OR AT NIGHT. LOADED TANKERS HAVE PRIORITY IN THE CHANNEL AND ALL OTHER SHIPS MUST KEEP CLEAR. THREE SINGLE POINT MOORINGS (SPM) ARE ALSO ASSOCIATED WITH THE TERMINAL. SPM 1 LIES NW OF THE TERMINAL STRUCTURE; SPM 2 AND SPM 3 LIE SE OF THE TERMINAL STRUCTURE. SUBMARINE PIPELINES CONNECT EACH SPM WITH THE TERMINAL.

UNBERTHING: FROM BERTH 1 & 3: AFTER CASTING OFF FROM BERTH SHIP WILL MAKE 180 DEG TURN TO STBD TO HEAD FOR THE CHANNEL FROM BERTH 2 & 4: ALL LINES ARE CAST OFF EXCEPT AFT BREAST LINES, SHIP IS HOVED ONTO BREAST, BOW COMES OUT NICELY AND LATER SLOWLY AFT SECTION OPENS UP, SHIP THEN PROCEEDS TO CHANNEL.

BERTH	1	2	3	4
BERTHING OPERATION COMMENCE	2 HRS AFTER HIGH TIDE	2 HRS AFTER LOW TIDE	2 HRS AFTER HIGH TIDE	2 HRS AFTER LOW TIDE
UN BERTHING OPERATION COMMENCE	1 HR PRIOR LOW TIDE	4 HRS PRIOR HIGH TIDE	1 HR PRIOR LOW TIDE	4 HRS PRIOR HIGH TIDE

MAX DRAFT: MAX DEPARTURE DRAFT 21,0 MTRS SW

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 10 of 28

BASRAH OIL TERMINAL

OUTWARD-BOUND: EIGHT (8) LIGHTED BUOYS DEFINE THE DEEP WATER CHANNEL AT THE 21 METERS DEPTH CONTOURS IN THE IMMEDIATE VICINITY OF BOT. THE BUOYS ARE BATTERY POWERED AND QUICK FLASH CHARACTERISTICS WITH THE VISIBILITY RATE OF 1 MILE. THE RADIO TOWER IS EQUIPPED WITH THE AVIATION HAZARD LIGHTING (RED). IT IS ALSO EQUIPPED WITH A LONG RANGE MARINE BEACONE (WHITE) LOCATED BELOW THE RED HAZARD LIGHTING.

FOURTEEN (14) BUOYS DESIGNATE THE DEEPWATER CHANNEL, STARTING AT FAIRWAY BUOY #1 AND ENDING SOME THIRTY (30) NAUTICAL MILES DOWN CHANNEL AT BUOY #14. BUOY #14 IS ABOUT TWO (2) NAUTICAL MILES OUTWARD FROM THE BOT. SOME OF THE BUOYS ARE MISSING (BUT NOT BUOY #14). THE TOTAL DISTANCE, THEN, FROM BUOY #1 TO BUOY #14 AND THEN ON TO THE BOT BERTHS IS SOME THIRTY TWO (32) NAUTICAL MILES.

LOADED VLCC'S MUST WAIT UNTIL HIGH TIDE TO TRANSIT THE DEEPWATER CHANNEL.

- 1) LOADED TANKERS HAVE PRIORITY IN THE CHANNEL AND ALL OTHER SHIPS MUST KEEP CLEAR.
- 2) VESSEL DEPARTING FROM BASRAH OIL TERMINAL MAINTAINING WATCH ON VHF CH 16 MARITIME SECURITY FORCES UNTIL CLEAR .
- 3) KEEP ON HAND STEERING UNTIL ITS CLEAR FROM BUOYS AND SHALLOW CHANNEL.
- 4) NOTE THAT BUOYS 4, 6, 9 AND 10 ARE MISSING. BUOY 5,7 AND 11 HAS NO TOP MARKS
- 5) FOR FURTHER INFORMATION SEE PILOTAGE INFORMATION.

NAVTEX STATION

BAHRAIN (B)
BANDAR -E SHAHID (F)
BUSHEIR (A)

NAV/METAREAS

PAKISTAN - IX

PERSIAN GULF

GENERAL INFORMATION: PERSIAN GULF IS COMPARATIVELY SHALLOW WITH DEPTHS OF LESS THAN 100 M; IN THE STRAIT OF HORMUZ LESS THAN 90 M. LT IS APPROACHED BY WAY OF THE GULF OF OMAN, WHICH MAY BE CONSIDERED AS AN ARM OF THE ARABIAN SEA EXTENDING IN A NW DIRECTION FROM A LINE JOINING RA'S AL HADD (22°32'N 59°48'E), NEAR THE E EXTREMITY OF ARABIA, AND GWATAR BAY, 185MILES NE; THENCE THROUGH THE STRAIT OF HORMUZ.

NORTH-EAST SHORE OF PERSIAN GULF IS MOUNTAINOUS, AND IN MOST PLACES STEEP-TO; IT PRESENTS A SERIES OF RUGGED AND PRECIPITOUS MOUNTAIN RANGES EXTENDING, IN GENERAL, NEARLY PARALLEL WITH THE COAST. THESE MOUNTAIN RANGES INCREASE IN HEIGHT AS THEY RECEDE INLAND AND, BEING VISIBLE AT GREAT DISTANCES, ARE GOOD MARKS; SOME ARE EVEN SNOW CAPPED FOR A GREAT PART OF THE YEAR.

SOUTH AND SOUTH WEST SHORES OF PERSIAN GULF ARE, WITH THE EXCEPTION OF THE NW SIDE OF THE OMAN PENINSULA, EXCEEDINGLY LOW; FROM THE PENINSULA, FOR NEARLY ITS WHOLE LENGTH, REEFS AND SHOALS EXTEND, IN PLACES, UP TO 50 MILES OFFSHORE. THE ARABIAN COAST IS, FOR THE MOST PART, A DESERT OF WHITE SAND EXTENSIVE TRACTS ARE QUITE UNINHABITED.

HEAD OF PERSIAN GULF IS LOW ALLUVIAL LAND MADE UP FROM THE DELTAS OF THE TIGRIS, EUPHRATES, KARUN AND OTHER RIVERS. THE NW END OF PERSIAN GULF IS PROBABLY SILTING UP OWING TO THE LARGE AMOUNT OF ALLUVIUM DEPOSITED BY THESE RIVERS. THE WATER IN THE UPPER PART OF PERSIAN GULF IS OF HIGHER SALINITY THAN THAT IN THE OPEN OCEAN.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 11 of 28

PERSIAN GULF

WEATHER: THE SUMMERS ARE VERY HOT AND DRY OVER THE WHOLE OF THE PERSIAN GULF AND GULF OF OMAN WITH THE MOIST SW MONSOON AFFECTING THE AREA TO THE E OF THE GULF 'OF OMAN IN SUMMER. THE HIGHEST TEMPERATURES IN THIS AREA OCCUR IN THE BRIEF TRANSITION PERIODS, BETWEEN THE NE AND SW MONSOONS, IN MAY AND JUNE AND AGAIN IN SEPTEMBER AND OCTOBER. WINTER IS MUCH COOLER OVER THE WHOLE REGION ALTHOUGH IT USUALLY REMAINS MAINLY FINE WITH ONLY BRIEF PERIODS OF UNSETTLED WEATHER' WINDS BETWEEN W AND N DOMINATE THE PERSIAN GULF FOR MOST OF THE YEAR AND THE GULF OF OMAN IN WINTER' NNE WINDS PREDOMINATE FARTHER W OVER THE ARABIAN SEA IN WINTER. IN SUMMER, SW MONSOON WINDS AFFECT THE AREA E OF THE GULF OF OMAN. WINDS ARE GENERALLY MODERATE IN WINTER AND LIGHT TO MODERATE IN SUMMER OVER THE PERSIAN GULF BUT SIGNIFICANTLY STRONGER OVER THE ARABIAN SEA IN SUMMER. WINDS OF FORCE 7 OR MORE ARE RECORDED ON LESS THAN 4% OF OCCASIONS OVER THE PERSIAN GULF AND GULF OF OMAN IN WINTER, AND ON LESS THAN 2% IN SUMMER OVER THE PERSIAN GULF BUT ON AROUND 7 TO 12% OF OCCASIONS IN THE EXTREME SE OF THE AREA. RAIN IS RARE BETWEEN JUNE AND SEPTEMBER, APART FROM SOME MONSOON RAINS IN SUMMER OVER THE E PARTS OF THE MAKRAN COAST. MODERATE FALLS OCCUR AT TIMES BETWEEN NOVEMBER AND APRIL ALTHOUGH THE NUMBER OF RAIN-DAYS IS SMALL COMPARED WITH MORE TEMPERATE CLIMATES. THE SIBERIAN ANTICYCLONE DECLINES IN SPRING WITH THE GREATEST PRESSURE FALLS IN MAY AND JUNE AND SIMILARLY, IS THE SIBERIAN ANTICYCLONE STARTS TO

RECOVER, THE GREATEST RISES OCCUR IN SEPTEMBER AND OCTOBER' DESPITE THE CONSIDERABLE ANNUAL PRESSURE CHANGES' THE MEAN PRESSURE GRADIENT OVER THE AREA IS RELATIVELY SMALL, ALTHOUGH SMALL LOCAL FLUCTUATIONS IN PRESSURE CAN RESULT IN SIGNIFICANT CHANGES IN BOTH WIND DIRECTION AND STRENGTH. ON THE RARE OCCASIONS THAT A TROPICAL STORM OR CYCLONE MOVES TOWARDS THE GULF OF OMAN THEN GREATER VARIATIONS FROM THE MEAN CAN BE EXPECTED

COASTAL AREAS AND LOCAL NAMES OF WINDS THE MAIN FACTORS WHICH MODIFY THE DIRECTION AND SPEED OF THE WIND ALONG COASTS ARE DESCRIBED IN THE MARINER'S HANDBOOK. THE PERSISTENT NW WINDS OVER THE PERSIAN GULF ARE CALLED SHAMAL, INDICATING THAT THE WIND IS OF N ORIGIN RATHER THAN BLOWING FROM ANY PARTICULAR DIRECTION. SOME AUTHORITIES CONFINE THE TERM TO OCCASIONS WHEN THE WINDS ARE FORCE 5 AND ABOVE. THE SHAMAL IS MOST FREQUENT IN THE N PERSIAN GULF AND IS MUCH LESS FREQUENT OVER THE GULF OF OMAN. THE SHAMAL IS ALSO MORE CONTINUOUS IN SUMMER THAN WINTER, DUE LARGELY TO THE ABSENCE OF MIGRATORY DEPRESSIONS FROM MAY ONWARDS. THE PERIOD BETWEEN 6 JUNE TO 16 JULY, KNOWN AS BARIHAL-JAUZAH, OR BARIH AL KABIR, IS OFTEN REFERRED TO AS THE TIME OF THE GREAT, OR 40-DAY, SHAMAL BECAUSE OF THE PERSISTENCE OF THE NW WINDS AT THIS TIME. GRADUAL INCREASES AND DECREASES IN THE STRENGTH OF THE SHAMALL CAN BE TRACED TO PRESSURE FLUCTUATIONS OVER THE AREA. THE ONSET OF A STRONG WINTER SHAMAL CAN BE VERY SUDDEN AND IS USUALLY ASSOCIATED WITH THE PRESSURE TROUGH AT A COLD FRONT; WINDS CAN VEER FROM A MODERATE SE TO A STRONG, OR EVEN GALE FORCE, SQUALLY NW WIND IN A MATTER OF MINUTES, LITTLE PRELIMINARY WARNING MAY BE OBSERVED FROM THE PRESSURE TENDENCY HOWEVER, A SHARP RISE OF PRESSURE ACCOMPANIES THE PASSAGE OF THE COLD FRONT. ONE INDICATOR, ALTHOUGH NOT INFALLIBLE, OF THE ONSET OF A STRONG SHAMAL IN THE S OF THE PERSIAN GULF IS THE ONSET OF A NW SWELL. SQUALLS MAY OR MAY NOT ACCOMPANY THE PASSAGE OF A COLD FRONT AND, WHETHER SQUALLY OR NOT, MAY GIVE LITTLE INDICATION AS TO WHETHER FURTHER SQUALLS ARE LIKELY. OTHER POSSIBLE INDICATORS ARE A DROP IN HUMIDITY OR A FALL IN PRESSURE A DAY OR TWO BEFORE THE ARRIVAL OF A DEPRESSION. LN CONTRAST TO THE SQUALLY CHARACTER OF THE WINTER SHAMAL, THOSE OF SUMMER ARE USUALLY ACCOMPANIED BY DRY AIR AND CLOUDLESS SKIES. DUST HAZE AND BLOWING SAND ARE A FEATURE OF THE SUMMER SHAMAL.

OTHER LOCAL WINDS ARE:

SUHAILI: ARABIC NAME FOR A SW WIND.

KAUS OR SHARKI: ARABIC AND PERSIAN NAMES, RESPECTIVELY, OR FOR SE WINDS. THEY ARE SOMETIMES USED IN REFERENCE TO E WINDS.

NASHI: ARABIC NAME FOR NE WINDS. THEY OCCUR IN WINTER ALONG THE LRANIAN COAST OF THE PERSIAN GULF AND ON THE MAKRAN COAST AND ARE MOST LIKELY TO BE ENCOUNTERED IN THE REGION OF THE STRAIT OF HORMUZ.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 12 of 28

PERSIAN GULF

SEA SWELL CONDITIONS: SEA WAVES GENERATED BY THE WIND CAN BE VARIABLE IN DIRECTION, BUT ARE PREDOMINANTLY NW THROUGHOUT THE YEAR IN THE PERSIAN GULF WITH THE FREQUENCY OF STRONG WINDS BEING marginally higher in winter and spring. WAVE HEIGHTS ARE GENERALLY LOWER THAN OVER MORE OPEN OCEANS, BUT BECOME FULLY DEVELOPED OVER THE SE PART OF THE PERSIAN GULF WITH NW WINDS AND, TO A MORE LIMITED EXTENT, OVER THE NW PART OF THE PERSIAN GULF WITH SE WINDS. IN THE STRAIT OF HORMUZ STRONG TIDAL STREAMS RUNNING AT AS MUCH AS 4 KN CAN CAUSE OPPOSING SEAS TO STEEPEN AND BREAK WITH STRONG NW OR SE WINDS. WITH THESE STRONG TIDES EVEN A MODERATE OPPOSING WIND MAY RESULT IN A MUCH HIGHER SEA STATE THAN WOULD NORMALLY BE EXPECTED. OVER THE E APPROACHES TO THE GULF OF OMAN, THERE IS A PRONOUNCED MONSOONAL CHARACTER TO THE WIND WITH SEA WAVES MAINLY FROM THE S IN SUMMER AND FROM THE NNW IN WINTER. THE PREDOMINANT DIRECTIONS OF THE SWELL WAVES FOLLOW A SIMILAR PATTERN TO THOSE OF THE SEA WAVES. IN THE PERSIAN GULF THEY ARE PREDOMINANTLY LOW NW THROUGHOUT THE YEAR WITH AN INCREASE IN FREQUENCY OF LOW SE SWELLS IN THE NW PART OF THE PERSIAN GULF IN JANUARY. IN THE APPROACHES TO THE GULF OF OMAN THE SWELLS ARE PREDOMINANTLY MODERATE S IN JULY BUT LOW AND VARIABLE IN DIRECTION DURING JANUARY.

CURRENT: THE GENERAL PATTERN OF THE CURRENT ON JANUARY NE MONSOON AND JULY SW MONSOON. THE CURRENT GENERATED BY THESE MONSOON WINDS ONLY AFFECT THE ARABIAN SEA AND TO A MUCH MORE LIMITED EXTENT TO GULF OF OMAN. IN PERSIAN GULF AND THROUGH THE STRAIT OF HORMUZ THE CURRENT ARE MOSTLY WEAK AND VARIABLE AND WITH THE TIDAL STREAM S PREDOMINATING

TIDAL STREAM AT STRAIT OF HORMUZ: THE IN-GOING STREAM ENTERING THE PERSIAN GULF USUALLY SET NORTH AT RATE OF 2 – 3 KTS. THE OUTGOING STREAM USUALLY SET IN THE OPPOSITE DIRECTION.

FOG AND VISIBILITY: FOG IS RARE OVER THE SEA AREAS BUT IS OCCASIONALLY REPORTED IN COASTAL AREAS. IT IS USUALLY VERY LOCAL AND SHORT LIVED, NORMALLY ONLY LASTING AN HOUR OR SO IN THE EARLY MORNING AROUND SUNRISE. SEE THE MARINER'S HANDBOOK FOR A FULL DESCRIPTION FOR THE DIFFERENT TYPES OF FOG AND CLIMATE INFORMATION (1.146) FOR THE FOG FREQUENCY AT A NUMBER OF STATIONS WITHIN THE AREA. VISIBILITY, PARTICULARLY IN WINTER, IS GOOD OR VERY GOOD AT SEA, BUT HAZE DUE TO RAISED DUST CAN REDUCE THE VISIBILITY TO LESS THAN 8 KM, PARTICULARLY IN COASTAL AREAS. OVER THE MORE OPEN WATERS OF THE PERSIAN GULF, THE FREQUENCY OF HAZE IS LESS THAN 5% IN WINTER BUT INCREASES TO AROUND 17 TO 25% IN SUMMER. OVER THE GULF OF OMAN, HAZE INCREASES IN FREQUENCY FROM AROUND 1 TO 3% IN WINTER TO 11% IN SUMMER. JULY IS USUALLY THE MONTH WHEN DUST HAZE IS MOST FREQUENT IN COASTAL AREAS. THE DUST IS RAISED BY A COMBINATION OF INTENSE LOCAL HEATING AND NW WINDS. VORTICES OF HOT AIR FREQUENTLY GIVE RISE TO MULTIPLE DUST STORMS (DUST DEVILS OR DUST WHIRLS) WHICH MAY THEN DRIFT OUT OVER COASTAL WATERS FOR A TIME TO REDUCE THE VISIBILITY TO BELOW FOG LIMITS (1000M OR LESS). THESE VORTICES CAN BE VERY GUSTY AND MAY RESULT IN WATERSPOUTS IN COASTAL WATERS. THE DUST PARTICLES ARE USUALLY EXTREMELY FINE AND CAN BE CARRIED FOR CONSIDERABLE DISTANCES ACROSS THE PERSIAN GULF AND GULF OF OMAN AND REDUCE VISIBILITY TO AROUND 4 TO 8 KM. MIRAGES AND ABNORMAL REFRACTION MAY BE ENCOUNTERED AT TIMES OVER THE SEA AREAS; SEE THE MARINER'S HANDBOOK FOR A FULL DESCRIPTION AND EFFECTS OF MIRAGES AND ABNORMAL REFRACTION

TSS TUNB-FARUR: TSS TUNB FARUR IS IMO ADAPTED AS PER COLREG. ALWAYS CAUTION WHEN NAVIGATING IN AREA THE VESSEL TRAFFIC MIGHT BE MODERATE TO HEAVY.

NAVTEX STATION:

BAHRAIN (B)
BANDAR-E SHAHID (F)
BUSHEIR (A)

WEATHER FACSIMILE STATION:

SPOS VIA E-MAIL

NAV/METAREAS:

PAKISTAN - IX

Check Lists	Issue Date	: 11.2008
Issued by: S & Q Dept.	Revision No./ Date	: 2 / 02.2011
Checklist: SQ/09	Page	: 13 of 28

OPL FUJAIRAH / KHOR FAKKAN

GENERAL OVERVIEW: THE UNITED ARAB EMIRATES PORT OF FUJAIRAH IS SITUATED ON THE W SIDE OF GULF OF OMAN, 80 MILES S OF STRAIT OF HORMUZ. THE PORT IS A MAJOR CONTAINER PORT AND OIL TERMINAL, BUT ALSO HANDLES GENERAL AND BULK CARGOES; A SPECIALIZED LIVESTOCK TERMINAL HAS BEEN CONSTRUCTED AT THE S END OF THE PORT. FUJAIRAH IS THE MAJOR PORT OF THE UNITED ARAB EMIRATES WITH DIRECT ACCESS TO GULF OF OMAN. FROM THE PORT AREA TO KHAWR FAKKAN, 11 MILES N, THE COAST IS BACKED BY HILLS RISING TO HEIGHTS OF BETWEEN 200 AND 900 M

WINDS—WEATHER: FUJAIRAH HAS A SUB-TROPICAL, ARID CLIMATE. BETWEEN DECEMBER AND MARCH IT IS PLEASANT WITH TEMPERATURES RANGING FROM 10°C TO 20°C; BETWEEN MAY AND OCTOBER TEMPERATURES RISE TO BETWEEN 38°C AND 48°C. HUMIDITY CAN BE AS HIGH AS 97% ON THE COAST, DROPPING SHARPLY INLAND; HOWEVER, AT NIGHT THE TEMPERATURES MAY DROP BELOW 20°C. THE SHAMAL HAS A MODERATING EFFECT ON THE TEMPERATURE IN SUMMER, BUT IT IS FREQUENTLY LADEN WITH DUST AND SAND, AND AT TIMES THE AIR BECOMES SO HAZY THAT THE SUN IS REDUCED TO A PALE DISC. A SEASONAL BREEZE BETWEEN MAY AND OCTOBER HELPS TO REDUCE THE HARSH HEAT. RAINFALL IS INFREQUENT AND IRREGULAR, COMING MAINLY DURING THE WINTER IN OCCASIONAL LOCAL THUNDERSTORMS; IT RARELY EXCEEDS 13 CM PER YEAR ALTHOUGH RAINFALL LEVELS IN THE MOUNTAIN REGIONS ARE HIGHER.

TIDES—CURRENTS: THE TIDES RISE ABOUT 2.6M AT HW AND 0.6M AT LW. A W CURRENT, WITH A RATE OF 1.4 KNOTS, WAS REPORTED (2010) IN THE APPROACH TO THE PORT.

RESTRICTED AREA: FUJAIRAH PORT NOTICE TO MARINERS NO.159 CONSIDERING THE SAFETY, SECURITY AND ENVIRONMENTAL ISSUES, VESSEL ANCHORING ADJACENT TO FUJAIRAH TERRITORIAL STRICTLY PROHIBITED WITH IMMEDIATE EFFECT.
FREE PASSING OF VESSELS THROUGH THE AFOREMENTIONED AREA (BETWEEN LONGITUDES 056 35N AND 05647 E) IS ALLOWED AS PER INTERNATIONAL MARITIME LAW.

AREA 1		AREA 2	
25 37.00N - 056 35.00E	25 37.00N - 056 47.00E	25 19.25N – 056 35.00E	25 19.25N – 056 47.00E
25 24.45N – 056 35.00E	25 24.45N – 056 47.00E	25 06.00N – 056 35.00E	25 06.00N – 056 47.00E

KHORFAKKAN PORT NOTICE TO MARINERS NO.101/2012 CONSIDERING THE SAFETY, SECURITY AND ENVIRONMENTAL ISSUES, VESSEL ANCHORING ADJACENT TO KHORFAKKAN TERRITORIAL WATERS BETWEEN LONG: 056 36.0E AND 56 49.25E IS STRICTLY PROHIBITED WITH IMMEDIATE EFFECT.
FREE PASSING OF VESSELS THROUGH THE AFOREMENTIONED IS ALLOWED AS PER INTERNATIONAL MARITIME LAW

12-24 N.M AREA BOUND BY FOLLOWING COORDINATED

1. 25 20.00N – 056 36.00E	2. 25 24.75N – 056 36.00E
3. 25 24.75N – 056 49.25E	4. 25 20.00N – 06 49.25E

OUTER ANCHORAGE: FUJAIRAH PORT NOTICE TO MARINERS NO.161/2012 EIGHT DESIGNATED ANCHORAGE AREAS, THE LIMITS OF WHICH ARE SHOWN ON THE CHART, LIE E AND NE OF THE PORT, AS FOLLOWS:

1. ANCHORAGE AREA A—VESSELS AWAITING ORDERS.
2. ANCHORAGE AREA B—VESSELS REQUIRING BUNKERING OR LUBRICATING OIL.
3. ANCHORAGE AREA C—VESSELS REQUIRING MARINE SERVICES, EXCLUDING OIL PRODUCTS.
4. ANCHORAGE AREA D—VESSELS CARRYING HAZARDOUS CARGO, EXPLOSIVES, LNG, OR LPG.
5. ANCHORAGE AREA N—NAVAL VESSELS ONLY.
6. ANCHORAGE AREA S—TANKERS INVOLVED IN SHIP-TO-SHIP OPERATIONS.
7. ANCHORAGE AREA T—TANKERS CALLING AT THE SPM TERMINAL.
8. ANCHORAGE AREA W—VESSELS AWAITING A BERTH IN THE PORT.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 14 of 28

OPL FUJAIRAH / KHOR FAKKAN

OUTER ANCHORAGE: VESSELS MUST OBTAIN PERMISSION FROM THE PORT CONTROL BEFORE ANCHORING. VESSELS ARE ALLOWED A MAXIMUM STAY OF 10 DAYS AT THESE ANCHORAGES. MOVEMENTS OF DOUBLE-BANKED (SIDE-BY-SIDE) VESSELS AND RENDEZVOUSING BETWEEN VESSELS UNDERWAY AND SERVICE BOATS AT THE OFFSHORE ANCHORAGES ARE PROHIBITED. DUE TO WATER DEPTH, TUG/LOADED BARGE COMBINATIONS, WITH THE EXCEPTION OF TUG/BALLAST BARGE COMBINATIONS, ARE NOT ALLOWED TO ANCHOR IN THE ANCHORAGE AREAS. ANCHORING IS PROHIBITED BETWEEN THE CHARTED ANCHORAGE AREAS AND THE SHORE.

COMMUNICATIONS:

PORT CONTROL VHF CH. 09 -10 - 16

TIME ZONE:

FUJAYRAH, U.A.E. LT = GMT + 04

NAVTEX STATIONS:

A) MUSQAT (M)

B) BANDAR ABBAS (F)

NAV/METAREAS:

A) PAKISTAN - IX

ARABIAN SEA

WEATHER: THE NE MONSOONS COMMENCES IN LATE OCTOBER ALTHOUGH THE WIND DIRECTION IS VERY VARIABLE EARLIER IN THE MONTH. BETWEEN NOVEMBER AND JANUARY ABOUT 90% OF ALL WINDS ARE FROM BETWEEN N AND E, BUT THIS DECREASES TO AROUND 60% IN FEBRUARY AND MARCH. AT THE HEIGHT OF THE NE MONSOON, WIND OF FORCE 5 TO 6 AND OVER OCCUR ON BETWEEN 16 AND 21% OF OCCASION. DURING THE TRANSITIONAL MONTHS OF APRIL AND OCTOBER, WINDS OF FORCE 5 TO 6 AND OVER OCCUR ON AROUND 5 TO 8% OF OCCASIONS. THE SW MONSOON DEVELOPS IN MAY AND IS WELL ESTABLISHED BETWEEN JUNE AND EARLY SEPTEMBER. DURING THE HEIGHT OF THE SW MONSOON, WINDS OF FORCE 5 TO 6 AND OVER OCCUR ON AROUND 85% OF OCCASIONS IN THE FAR SE OF THE AREA. IN MID SEPTEMBER THE SW MONSOON WINDS START TO WEAKEN.

FOG AND VISIBILITY: VISIBILITY IS OFTEN GOOD OR VERY GOOD AND FOG IS RARE WITH A FREQUENCY OF LESS THAN 1%. VISIBILITY OF LESS THAN 5 MILES OCCUR IN SOME PARTS OF THE AREA BETWEEN MAY AND SEPTEMBER AND MORE PARTICULARLY IN THE AREA OF COLD WATER UPWELLING OFF THE SE COAST OF ARABIA. SAND AND DUST STORM MAY REDUCE THE VISIBILITY TO FOG LIMITS, AND WITH THE WORST AFFECTED REGIONS BEING THE NW OF THE AREA AND OFF THE COAST OF OMAN

CURRENT: THE PREDOMINANTLY W-SETTING CURRENT ASSOCIATED WITH THE NE MONSOON HAS A HIGH CONSTANCY S OF 14 DEGREES N BUT EVEN IN THIS AREA THE CURRENT OCCASIONALLY SETS E. COUNTER CURRENTS SETTING NE ARE NOT UNCOMMON NEAR THE SE COAST OF THE ARABIAN PENINSULA PARTICULARLY TOWARDS THE END OF THE NE MONSOON IN FEBRUARY AND MARCH. DURING APRIL THE GENERAL NE-SETTING CURRENT WHICH IS TYPICAL OF THE SW MONSOON, FIRST BECOME ESTABLISHED OFF THE EAST COAST OF SOMALIA AND THE SE COAST OF ARABIAN PENINSULA. THIS CURRENT THEN RAPIDLY STRENGTHENS TO AFFECT THE MORE OFTEN PARTS OF ARABIAN SEA. BETWEEN JUNE AND SEPTEMBER THIS NE-SETTING CURRENT IS PARTICULARLY STRONG IN THE VICINITY OF RAAS CASEYR AND SUQUTRA WHERE RATES OF 6 KNOTS HAVE BEEN REPORTED ON SOME OCCASIONS. DURING OCTOBER THE CURRENTS USUALLY BECOME WEAKER AND MORE VARIABLE AND BY NOVEMBER THE W-SETTING CURRENT OF THE NE MONSOONS ARE RE-ESTABLISHED

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 15 of 28

ARABIAN SEA

SWELL; SWELLS ARE PREDOMINANTLY LOW NE DURING THE NE MONSOON IN WINTER, BUT BECOME PROGRESSIVELY MORE E IN THE W PART OF GULF OF ADEN. IN SUMMER, DURING THE HEIGHT OF THE SW MONSOON, SWELLS ARE GENERALLY LOW SW IN THE W PART OF GULF OF ADE. TO THE E, OVER THE MORE OPEN WATERS OF ARABIAN SEA, THE SWELLS ARE MAINLY MODERATE(2m TO 4m) SSW BUT WITH HEAVY SWELLS(OVER 4m) BEING REPORTED ON ABOUT 30% OF OCCASIONS. AN ABNORMAL INCREASE IN SWELL HEIGHT OFF THE SE COAST OF ARABIA MAY INDICATE THE APPROACH OF TROPICAL CYCLONE.

WEATHER FACSIMILE STATION

SPOS VIA E-MAIL

NAV/METAREAS

A) PAKISTAN IX

TIME ZONE

ZT = UTC + 4H

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 16 of 28

ARABIAN SEA – INDIAN OCEAN ANTIPIRACY

THE POTENTIALLY DANGEROUS AREA FOR PIRACY ATTACKS IS DEFINED IN BA CHART Q6099 "ANTI-PIRACY PLANNING CHART / RED SEA, GULF OF ADEN AND ARABIAN SEA". FOR VOYAGE OPTIMISATION REASONS THE COMPANY HAS EXTENDED THE EAST BORDER OF THE UKMTO VOLUNTARY REPORTING AREA TO LONGITUDE 080° E. INFORMATION RECEIVED FROM IMO AND VARIOUS SECURITY ORGANISATIONS INDICATE THAT ALL SUCCESSFUL PIRACY ATTACKS OCCURRED ON VESSELS WITH LOW FREE-BOARD. BASED ON THIS INFORMATION IT IS CONSIDERED SAFE FOR THE VESSELS TO TRANSIT THE DANGEROUS AREA IN BALLAST CONDITION WHEN THE FREEBOARD IS IN EXCESS OF 10 METERS, THE VESSEL IS SAILING IN FULL SPEED AND IN COMPLIANCE WITH THE LATEST VERSION OF THE BEST MANAGEMENT PRACTICES. THERE ARE CONCERNS FOR THE VESSELS TRANSITING THE AREA IN LADEN CONDITION WHERE PIRATES MAY ATTEMPT TO BOARD BY THE USE OF LIGHT WEIGHT LADDERS, GRAPNEL AND ROPES. IN THIS RESPECT AND TAKING INTO CONSIDERATION THE ACCELERATED INCREASE OF PIRACY ATTACKS IN THE GOA AND THE WIDER INDIAN OCEAN AREA, THE COMPANY HAS DEVELOPED THE BELOW PROCEDURES WHICH SHOULD BE FOLLOWED BY ALL VESSELS WHILE NAVIGATING IN THIS AREA AS FOLLOWS:

- WHEN ENTERING THE BOUNDARIES OF THE POTENTIAL DANGEROUS AREA FOR PIRACY AS DESCRIBED ABOVE THE VESSEL'S SECURITY LEVEL SHOULD BE INCREASED TO TWO (2) AND RELEVANT RECORDS SHOULD BE KEPT AS INDICATED IN THE VESSEL'S SECURITY PLAN.
- MASTER SHOULD NOTIFY THE CSO OR, DPA AT LEAST ONE WEEK BEFORE ENTERING THE DANGEROUS AREA IN ORDER TO ENROL THE VESSEL IN THE MARITIME SECURITY CENTRE - HORN OF AFRICA (MSCHOA) THROUGH INTERNET SITE (WWW.MSCHOA.ORG).
- THE LATEST VERSION OF THE "BEST MANAGEMENT PRACTICES TO DETER PIRACY OFF THE COAST OF SOMALIA AND IN THE ARABIAN SEA AREA" AS WELL AS THE RELEVANT LEAFLET ISSUED BY EUNAVFOR SOMALIA WITH TITLE "SURVIVING PIRACY OFF THE COAST OF SOMALIA" SHOULD BE READ CAREFULLY AND THE PROCEDURES INCLUDED SHOULD BE IMPLEMENTED RESPECTIVELY.
- VESSELS WHICH ARE FIXED TO NAVIGATE THROUGH HIGH RISK AREA WILL BE SUPPLIED WITH THE NECESSARY MATERIAL AND EQUIPMENT FOR HARDENING SUCH AS ELECTRO WELDED WIRE MESH, RAZOR WIRE, IRIDIUM SATELLITE PHONE AND PORTABLE GPS WITH EXTERNAL ANTENNAS ETC.
- MASTERS INDENTING TO ENTER THE AREA SHOULD COMMUNICATE WITH THE CSO IN ORDER TO DISCUSS THE CONTENTS OF THIS CIRCULAR AND PREPARE THEIR CREWS AND VESSELS ACCORDINGLY.
- ON A CASE BY CASE BASIS, DEPENDING ON THE VOYAGE ASSESSMENT, THE VESSELS, FIXED TO NAVIGATE THROUGH THE HIGH RISK AREA IN LADEN CONDITION MAY BE BOARDED BY A TEAM OF **ARMED** SECURITY GUARDS WHO WILL ASSIST THE MASTER IN THE FOLLOWING AREAS:
- ASSIST IN THE VESSEL'S HARDENING
- PROVIDE CONTINUOUS INTELLIGENCE ABOUT THE CURRENT PIRACY THREATS AND THE PRESENCE OF NAVAL FORCES IN THE AREA.

REPORTING TO OFFICE: WHILE ENTERING AND NAVIGATING IN THE DANGEROUS AREA FOR PIRACY ATTACKS AN EMAIL REPORT CONTAINING BELOW INFORMATION SHOULD BE SENT TO SQ AND OP DEPARTMENTS DAILY AT 08:00, 15:00 AND 23:00 VESSEL'S LOCAL TIME:

1. LATITUDE / LONGITUDE,
2. COURSE,
3. SPEED,
4. WEATHER CONDITIONS (SEA STATE / WIND FORCE AND DIRECTION/ SWELL),
5. VISIBILITY AND
6. ANY OTHER USEFUL INFORMATION / COMMENTS

USE OF AIS: EUNAVFOR AND NATO RECOMMENDS THAT AIS SHOULD BE LEFT ON THROUGHOUT THE PIRACY HIGH RISK AREA AS A SAFETY PRECAUTION AS THIS WILL ALLOW THE COUNTER PIRACY NAVAL FORCES IN THE AREA TO TRACK THE POSITIONS OF VESSELS IN REAL TIME. AIS TRANSMISSIONS SHOULD BE RESTRICTED TO SHIP'S IDENTITY, POSITION, COURSE, SPEED, NAVIGATIONAL STATUS AND SAFETY-RELATED INFORMATION ONLY. HOWEVER, THE USE OF AIS IN THE SPECIFIC AREA REMAINS ENTIRELY AT THE MASTER'S DISCRETION. IF IT IS SWITCHED OFF FOR THE TRANSIT OF THE HIGH RISK AREA DUE TO SECURITY CONCERNS, AN ENTRY SHOULD BE MADE IN THE DECK LOG STATING WHEN THE UNIT WAS DEACTIVATED AND THE REASONS FOR DOING SO. IN THE EVENT OF A PIRACY ATTACK IT SHOULD BE SWITCHED ON IMMEDIATELY.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 17 of 28

ROUTE: FUJAIRAH – MAURITIUS & VICE VERSA: NORTHBOUND VESSELS PASSING LATITUDE 10° 00'S ENTERING THE HIGH RISK AREA SHOULD INCREASE THEIR SPEED TO MAXIMUM NCR AND NOTIFY OP, SQ AND TE DEPARTMENTS RESPECTIVELY. SECURITY LEVEL SHOULD BE INCREASED TO TWO (2) WHEN PASSING LATITUDE 10° 00'S. SOUTHBOUND VESSELS PASSING LATITUDE 10° 00'S LEAVING THE HIGH RISK AREA SHOULD DECREASE THEIR SPEED TO COMPLY WITH CHARTER PARTY REQUIREMENTS AS INSTRUCTED BY OP AND NOTIFY OP AND TE DEPARTMENTS RESPECTIVELY. SECURITY LEVEL SHOULD BE DECREASED TO ONE (1) WHEN PASSING LATITUDE 10° 00'S.

PROPOSED ROUTE

WP1: 25° 30' N - 056° 30' E

WP2: 20° 00' N - 065° 00' E

WP3: 06° 30' N - 070° 00' E

WP4: 10° 00' S - 068° 00' E

WP5: 20° 00' S - 058° 00' E

UKMTO DUBAI REPORTING SCHEME (ANTI-PIRACY)

A VOLUNTARY REPORTING SCHEME COVERS THE RED SEA, THE INDIAN OCEAN NORTH OF 10 00.00 S AS WELL AS THE ARABIAN GULF.

REPORTING PROCEDURE: MERCHANT VESSELS OF ANY FLAG ARE INVITED TO REPORT UPON ENTERING THE VOLUNTARY REPORTING AREA AS FOLLOWS:

(A) LAT 30 00.00N (GULF OF SUEZ) (FOR VESSELS ENTERING OR LEAVING THE AREA VIA THE RED SEA)

(B) LAT 10 00.00S (FOR VESSELS ENTERING OR LEAVING THE AREA VIA THE INDIAN OCEAN)

(C) LON 078 00.00E (FOR VESSELS ENTERING OR LEAVING THE AREA VIA THE INDIAN OCEAN)

(D) ON ENTERING THE ABOVE AREA OR LEAVING A PORT WITHIN THE REGION, THE RECOMMENDED VOLUNTARY REPORTING REQUIREMENTS ARE AS FOLLOWS:

INITIAL REPORT TO UKMTO DUBAI (EMAIL OR FAX)

INITIAL REPORT TO MARLO (EMAIL OR FAX)

IF PLANNING TO TRANSIT THE GULF OF ADEN OR NAVIGATE WITHIN THE AREA BOUNDED BY THE AFRICAN COAST, LAT 12 00.00N, LON 058 00.00E AND LAT 10 00.00S, REGISTER VESSEL MOVEMENT WITH MSC-HOA (EMAIL OR FAX)

AFTER TRANSMITTING THE INITIAL REPORT TO UKMTO DUBAI, MARLO AND MSC-HOA, VESSELS ARE ENCOURAGED TO REPORT THEIR NOON POSITION, COURSE, SPEED ESTIMATED AND ACTUAL ARRIVAL TIMES TO UKMTO DUBAI AND MARLO WHILST OPERATING IN THE REGION.

VESSELS ARE ALSO ENCOURAGED TO INCREASE THE FREQUENCY OF SUCH REPORTS WHEN NAVIGATING IN KNOWN HIGH RISK AREAS AND FURTHER REPORT UPON PASSING POINT A AND POINT B IN THE GULF OF ADEN. (SEE ADMIRALTY LIST OF RADIO SIGNAL NP286(3) PAGE320 FOR CONTACT DETAILS)

PORT LOUIS

PORT LOUIS: IS OF MEDIUM SIZE AND CONSISTS OF A CITY, AN OUTER ROADSTEAD, AND AN INNER AND OUTER HARBOR; IT IS THE PRINCIPAL HARBOR OF MAURITIUS. THERE ARE FACILITIES FOR GENERAL CARGO VESSELS AND TANKERS AND IS THE SITE OF A BULK SUGAR TERMINAL. THE PORT AUTHORITY IS MAURITIUS MARINE AUTHORITY, REPRESENTED BY THE HARBORMASTER

WINDS &N WEATHER: THE HARBOR IS SHELTERED FROM ALL WINDS EXCEPT NW, WHICH SELDOM BLOW WITH ANY STRENGTH, EXCEPT IN THE CYCLONE SEASON FROM DECEMBER 1 TO APRIL 30. WHEN A CYCLONE IS EXPECTED TO PASS WITHIN 300 MILES OF THE ISLAND, A WEATHER FORECAST IS DELIVERED DAILY TO EACH VESSEL IN PORT; MORE FREQUENT FORECASTS ARE DELIVERED OR SIGNED DURING CYCLONE EMERGENCIES. SHIPS CAN EXPECT AT LEAST 24 HOURS NOTICE OF A CYCLONE; ABOUT 3 DAY'S WARNING IS NORMALLY GIVEN. 2 THE MOST CRITICAL TIME DURING A CYCLONE IS WHEN THE WIND IS ON THE BEAM. PROVIDED THE VESSEL IS NOT TOO HIGH OUT OF WATER, THERE IS A GOOD CHANCE OF RIDING OUT THE STORM IF THE FOLLOWING PROCEDURE IS COMPLIED WITH:

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 18 of 28

1. NO ATTEMPT SHOULD BE MADE TO KEEP THE SHIP BROADSIDE TO THE WIND BY HOLDING ON TO WINDWARD CABLE AND HEAVING THE HEADLINES TAUT; THE HEADLINES SHOULD BE SLACKED DOWN AND THE WINDWARD CABLE PAYED OUT, TO ALLOW THE SHIP'S HEAD TO FALL OFF THE WIND, EVEN IF THIS IS TOWARDS AND THE SIDE OF THE CHANNEL.

SINCE THE SIDES OF THE CHANNEL ARE STEEP-TO, THE BOW WILL COME TO REST AGAINST THE SIDE OF THE CHANNEL WITH ANY SURGING TO CEASE, AND THE STERN MOORINGS WILL NOT BE DISTURBED.

2. SHOULD THE WIND SHIFT FROM ONE SIDE OF THE SHIP TO THE OTHER, AS THE CYCLONE PASSES OVER THE ISLAND, THE SLACK IN THE CABLE SHOULD BE TAKEN IN AND THE OTHER CABLE PAYED OUT, TO ALLOW THE SHIP TO FALL OFF THE WIND AS BEFORE.

3. NO OUTSIDE ASSISTANCE CAN BE GIVEN UNTIL THE WEATHER MODERATES; PILOTS ARE PLACED ON THE MORE VULNERABLE VESSELS.

4. ANY VESSEL REMAINING IN PORT LOUIS MORE THAN 48 HOURS IN THE CYCLONE SEASON SHOULD OBTAIN SPECIAL MOORINGS FROM THE PORT AUTHORITIES.

TIDES & CURRENTS: AT THE ENTRANCE, THE EBB CURRENT FLOWS SW AND THE FLOOD CURRENT FLOWS NE. TIDAL RANGE IS 0.5M.

DEPTHS & LIMITATIONS: PORT LOUIS IS A VERY SIMPLE HARBOR TO NAVIGATE. THE HARBOR ENTRANCE IS WELL MARKED BY NAVIGATION AIDS. THE CHANNEL IS ONLY ABOUT 1 MILE IN LENGTH. THERE IS A LEAST CHARTED DEPTH OF 12.8M ON THE ENTRANCE RANGE LINE; THE HARBOR IS DREDGED TO A DEPTH OF 12.5M AS FAR AS QUAY D.

SIGNALS: THE CONSPICUOUS SIGNAL TOWER AT THE SIGNAL STATION AT FORT WILLIAM, ON THE S SIDE OF THE ENTRANCE, IS 21.3M HIGH AND PAINTED IN BLACK AND YELLOW CHECKERS; THERE IS A WHITE IRON FLAGSTAFF ON A TRIPOD.

ANCHORAGE: THERE IS ANCHORAGE IN THE OUTER ROADSTEAD, ABOUT 1.3 MILES NW OF FORT GEORGE, IN DEPTHS OF 27 TO 33M, SAND AND CORAL. 2 THE QUARANTINE ANCHORAGE, WHOSE POSITION MAY BE SEEN ON THE CHART, IS SITUATED ON THE SW SIDE OF THE ENTRANCE RANGE, NW OF THE SIGNAL STATION. ANCHORAGE IS PROHIBITED IN AN AREA W OF THE SIGNAL STATION, IN AN AREA OF SUBMARINE CABLES. FOR VESSELS ANCHORING IN THE OUTER ROADSTEAD, THE FOLLOWING IS THE ADVICE OF A FORMER EXPERIENCED HARBORMASTER: WHEN ANCHORING IN THE OUTER ROADSTEAD, FROM THE MOMENT OF ANCHORING, VESSELS SHOULD BE READY TO WEIGH ANCHOR AND PUT TO SEA IF NECESSARY. USE CHAIN FOR A BUOY ROPE. IF THE SIGNAL IS MADE TO PUT TO SEA, DO SO AT ONCE, AND NEVER ATTEMPT TO RIDE OUT THE STORM. WHEN LEAVING THE ANCHORAGE FROM STRESS OF WEATHER, NOTE THE DIRECTION IN WHICH THE WIND SHIFTS, AND RUN THE VESSEL IN THE OPPOSITE DIRECTION UNTIL CLEAR OF THE LAND, WHEN AN E COURSE WILL TAKE ITS INTO GOOD WEATHER. NEVER HEAVE-TO WITH THE VESSELS HEAD TOWARD THE SHORE; IN BAD WEATHER, LOCAL CURRENTS ARE OFTEN VERY STRONG AND UNCERTAIN IN DIRECTION; MANY VESSELS, IN THE BELIEF THAT THEY HAD MADE A SUFFICIENT OFFING, HAVE BEEN HAZARDED, AND SOME LOST, THROUGH NEGLECTING THIS PRECAUTION.

TIME ZONE

MAURITIUS + 4 HRS

NAVTEX STATION

A) MAURITIUS (C)

WEATHER FACSIMILE STATION

A) CAPE NAVAL (NAVCOMCEN CAPE)

NAV/METAREAS:

A) INDIA VIII

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 19 of 28

EAST OF SOUTH AFRICA

WEATHER: COAST OF THE REPUBLIC OF SOUTH AFRICA, DISTURBED CONDITIONS OCCUR IN EXTREME S PART OF THE ZONE FROM MAY TO OCTOBER. MAINLY FAIR WEATHER PREVAIL OVER THE REST OF THE AREA, WITH ADEQUATE RAINFALL AND MODERATE TEMPERATURE. FROM OCTOBER TO APRIL, THE COASTAL AREA S OF ABOUT 33 deg S HAS FREQUENT STRONG TO GALE FORCE WINDS AND HEAVY SEAS. SEA FOG RARE.

THE SUBTROPICAL ANTICYCLONE WITH AN AXIS OF HIGH PRESSURE LIES JUST N OF 30 deg S IN WINTER, AND SOMEWHAT FARTHER S IN SUMMER. THE ZONE OF HIGH PRESSURE INCLUDES SEPARATE ANTICYCLONIC CELLS WITH INTERVENING TROUGHS OF LOW PRESSURE.

AVERAGE VALUE OF PRESSURE ARE LISTED IN THE CLIMATIC TABLE FOR SELECTED STATIONS. SIGNIFICANT DEVIATIONS OF PRESSURE FROM AVERAGE ARE FREQUENT. FRONTAL TROUGHS CROSS THE AREA AND ARE ASSOCIATED WITH DEPRESSIONS MOVING E OVER THE SOUTHERN OCEAN.

CURRENTS: AGULHAS CURRENT IS A CONTINUATION OF MOZAMBIQUE CURRENT AUGMENTED BY THE PART OF THE SOUTH EQUATORIAL CURRENT FLOWING S OF MADAGASCAR. IT CLOSELY FOLLOWS THE COAST OF SOUTH AFRICA TO THE VICINITY OF EAST LONDON, AND IS PARTICULARLY FAST AND NARROW OFF THE COAST BETWEEN CAPE SAINT LUCIA AND EAST LONDON. IT SETS MOST STRONGLY DURING THE SOUTHERN SUMMER; RATES OF ABOUT 5 kn HAVE BEEN RECORDED IN ALL MONTHS OF THE YEAR. THE CORE OF THE CURRENT LIES CLOSE TO THE CONTINENTAL SLOPE, AND IT APPEARS THAT THE INSHORE EDGE OF THE CORE APPROXIMATES TO THE 200 m DEPTH CONTOUR. INSHORE COUNTER CURRENT ARE COMMON NEAR THE COAST BETWEEN CAPE AGULHAS AND DURBAN THOUGH SUCH CURRENTS ARE VERY NARROW CURRENTS AND THE AGULHAS CURRENT CAN CRATE LOCAL ONSHORE SETS, SOMETIMES STRONG. THE POSITION AND STRENGTH OF THESE SETS DEPEND UPON RECENT WEATHER.

SEA AND SWELL: THE PREVAILING SWELL VARIES IN DIRECTION BETWEEN S AND W FROM THE W LIMIT AT LONGITUDE 20 deg E, TO THE END OF MOZAMBIQUE CHANNEL. ROUGH OR VERY ROUGH SEAS OCCUR WHEN ACTIVE DEPRESSIONS AND TROUGHS MOVE E AND NE ACROSS THE EXTREME S PART OF THE AREA. IN MOZAMBIQUE CHANNEL THE SWELL IS MAINLY MODERATE, BUT IS FREQUENTLY DISRUPTED AS THE SE TRADE WIND IS DEFLECTED BY THE ISLAND OF MADAGASCAR. THE MAIN DIRECTION IS FROM BETWEEN E AND SE SWELL AND SEA DISTURBANCE ARE GREATEST AT EACH END OF THE CHANNEL.

AN APPROACHING CYCLONE AMY INTRODUCE A MARKED INCREASE IN SWELL IN MOZAMBIQUE CHANNEL OR ITS APPROACHES. THE SEA RE BETWEEN THE N ENTRANCE OF THE MOZAMBIQUE CHANNEL AND LATITUDE 11 deg N IS DOMINATED BY THE SE TRADE WHICH PRODUCES A MODERATE SWELL FROM BETWEEN SE AND S. NEAR THE COAST THE WIND IS S TO SW AND THE SLIGHT TO MODERATE SWELL RUNS PARALLEL TO THE COAST. THE INCREASING WIND DURING THE AFTERNOON SEA BREEZE RAISES A MODERATE SEA, AND TROUBLESOME ROLLERS CAN DEVELOP. SEA AND SWELL ARE INCREASED CONSIDERABLY WHEN EITHER MONSOON REACHES ITS MAXIMUM STRENGTH OF FORCE 6 TO 7.

FOG AND VISIBILITY:

SEA FOG IS FREQUENT IN ALL MONTHS. VISIBILITY LESS THAN 5 MILES IS REPORTED IN 10 % OF OBSERVATION; THE OCCURRENCE DROPS OT 5 % IN THE NE PART OF THE ZONE. VISIBILITY MAY TEMPORARILY FALL TO LESS THAN HALF A MILE IN HEAVY RAINSTORMS. DURING OFFSHORE WINDS. DUST MAY CONSIDERABLY REDUCE VISIBILITY. SEA FOG IS MOST LIKELY NEAR CAPE AGULHAS AND THE COAST MAY BECOME OBSCURED DURING ONSHORE WINDS.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 20 of 28

RULE FOR NAVIGATION OF LADEN TANKERS OFF THE SOUTH AFRICAN COAST

LADEN TANKERS WHEN WESTBOUND OFF OF THE AFRICAN COAST SHOULD ADHERE TO THE FOLLOWING:

- 1) LADEN TANKERS SHOULD MAINTAIN MINIMUM DISTANCE OF 20 NAUTICAL MILES OFF THE FOLLOWING LANDMARKS.
 - 1) SOUTH SAND BLUFF
 - 2) BASHEE RIVER
 - 3) HOOD POINT
 - 4) CAPE RECEIFE
- 2) THESE TANKERS SHOULD THEN TO PASS THROUGH THE WESTBOUND OR NORTH LANES OF THE TSS OFF THE FA PLATFORM AND THE ALPHARD BANKS AND MAINTAIN MIN. DISTANCE OF 20 N.M. FROM THE FOLLOWING LANDMARKS.
 - 1) CAPE AGULHAS
 - 2) QUOIN POINT
 - 3) CAPE POINT
 - 4) SLANGKOP POINT
 - 5) CAPE COLUMBINE

EXEMPTIONS:

DURING THE WINTER SEASON (16 APRIL TO 15 OCTOBER) MAINTAIN MINIMUM DISTANCE OF 20 N.M. OFF THE APPROPRIATE LANDMARKS IN PARAGRAPH 1.1. HOWEVER, ON APPROACHING THE WINTER ZONE, THEY MAY REMAIN WITHIN THE SUMMER ZONE AS CLOSE TO THE SEPARATION LINE AS POSSIBLE, AND FOR THE MINIMUM PERIOD NECESSARY, TO ENSURE THAT THEY CAN REMAIN ON THEIR SUMMER LOAD LINES THROUGHOUT. IN THE VICINITY OF ALPHARD BANKS AND THE FA PLATFORM THEY ARE TO ADJUST THEIR COURSE TO PASS THROUGH THE WESTBOUND TRAFFIC LANES.

FOR FURTHER DETAILS NAVIGATION RULES AND REGULATIONS SEE: **SHIPS ROUTING F.**

NAVTEX STATION NAV/METAREAS

- A) DURBAN (O)
B) PORT ELIZABETH (I)

WEATHER FACSIMILE STATION

- A) CAPE NAVAL (NAVACOMCEM)

NAV/METAREAS

- A) SOUTH AFRICA VII

Check Lists	Issue Date	:	11.2008
Issued by: S & Q Dept.	Revision No./ Date	:	2 / 02.2011
Checklist: SQ/09	Page	:	21 of 28

SOUTH ATLANTIC OCEAN

WEATHER: THE CLIMATE OF THE AREA VARIES GREATLY FROM N TO S REFLECTING THE LARGE RANGE OF LATITUDE, AND WITH CONSIDERABLE CONTRAST IN TEMPERATURE BETWEEN THE TROPICAL NORTH N AND THE EXTREME SW WHERE THE WINTERS ARE RELATIVELY COLD.

THE AREA MAY BROADLY DIVIDED INTO SIX REGION WITHIN THE FOLLOWING APPROXIMATE LATITUDE WITH SEASONAL MOVEMENTS TO THE N AND S.

- A) THE NE TRADE WINDS IN EXTREME N OF THE AREA BETWEEN JANUARY AND MAY.
- B) THE EQUATORIAL TROUGH OR DOLDRUMS – 5 deg N TO 5 deg S.
- C) THE SE TRADE WINDS – 5 deg S TO 20 deg S.
- D) THE SUBTROPICAL HIGH PRESSURE BELT- 20 deg S TO 35 deg S.
- E) VARIABLES.
- F) WESTERLIES (THE ROARING FORTIES).

TROPICAL WEATHER PREVAILS ALONG THE N COAST OF BRAZIL AND THE AMAZON BASIN WITH HIGH TEMPERATURE AND HUMIDITY THROUGHOUT THE YEAR. RAINFALL IS ABUNDANT AND EXCEEDS 2500mm IN PLACES WHICH, ON OCCASIONS, RESULT IN DISASTROUS FLOODS IN SOME INLAND PARTS OF THE REGION, ESPECIALLY BETWEEN FEBRUARY AND APRIL. IN CONTRAST, IN THE S OF THE AREA ALONG THE ARGENTINE COAST, THERE IS AN ARID BUT TEMPERATE CLIMATE WITH FREQUENT WINTER FROST, AND WITH AN ANNUAL RAINFALL AMOUNT OF AROUND 200mm NEAR THE COAST. THE

E TO SE TRADE WINDS DOMINATE A WIDE AREA TO THE N OF THE HIGH PRESSURE BELT AT ABOUT 25 deg TO 35 deg S AND WITH W WINDS PREVAILING TO THE S OF 40 deg S THAT EXTEND N TO AROUND 35 deg S IN WINTER.

AT SEA THE WEATHER IS GENERALLY FAIR WITH BROKEN CLOUD. CLOUDY PERIODS AND SHOWER BECOME MORE WIDESPREAD IN SUMMER AND AUTUMN WHEN THE INTER TROPICAL CONVERGENCE ZONE (ITCZ) IS CLOSE TO THE S LIMIT OF THE AREA. FOG IS RARE AND VISIBILITY IS GENERALLY GOOD EXCEPT IN SHOWERS.

CURRENTS:

A) GUIANA CURRENT ORIGINATES FROM THE BRANCH OF THE SOUTH EQUATORIAL CURRENT WHICH SETS NW ON APPROACHING THE COAST, THEN NW ALONG THE NE FACING COAST OF SOUTH AMERICA TOWARDS THE CARIBBEAN. ITS AVERAGE RATE IS BETWEEN 1 AND 1 ½ kn WITH A HIGH CONSTANCY NEAR THE GUIANAS AND NORTH BRAZIL, ON ITS N FLANK THE CURRENT IS AUGMENTED BY THE NORTH EQUATORIAL CURRENT. THE CURRENT AT THIS POINT IS SOME 200 TO 300 MILES WIDE AS IT PARALLEL THE COAST. THE RATE IS STRONGEST ABOUT 50 TO 150 MILES OFFSHORE BETWEEN 45 deg AND 55 deg W WITH AN AVERAGE RATE OF AROUND 2 kn, ALTHOUGH RATES OF 4 kn HAVE BEEN REPORTED ON SOME OCCASIONS ESPECIALLY BETWEEN JULY AND SEPTEMBER. BETWEEN THE MONTHS OF THE RIO AMAZONAS AND CABO DE SAO ROQUE, WITH NE WINDS, A COASTAL COUNTER CURRENT SETTING ESE IS POSSIBLE.

B) SOUTH EQUATORIAL CURRENT, THIS CURRENT SETS TO THE W BETWEEN ABOUT 2 deg N AND 20 deg S BUT, IN MARCH, THE N LIMIT MAY EXTEND ON OCCASIONS TO AROUND 5 deg N. THE AVERAGE RATE IN THE N IS ABOUT ¾ kn IN MOST MONTHS WITH A HIGH CONSTANCY. BETWEEN MAY AND SEPTEMBER, THE AVERAGE RATE INCREASE TO AROUND 1 kn WITH A FEW REPORTS OF RATES BETWEEN 2 AND 3 kn. TO THE S OF 6 deg S THE AVERAGE RATE DECREASES TO AROUND ½ kn, AND THE CONSTANCY OF THE CURRENT BECOMING LOW NEAR 20 deg S BETWEEN JANUARY AND MARCH, AND 15 deg S BETWEEN JULY AND SEPTEMBER. FROM NOVEMBER TO JANUARY, THE PREDOMINANTLY W CURRENT DIVIDES AT ABOUT 6 deg S 30 deg W WITH ONE BRANCH SETTING WNW TOWARDS THE CARIBBEAN AND THE OTHER SETTING SW T O FROM THE BRAZILIAN CURRENT. THE CURRENT DIVIDES FARTHER S AT OTHER TIMES OF THE YEAR AND BETWEEN MAY AND JULY THE DIVISION IS NEAR 8 deg S. NEAR THE COAST THE SET OF THE CURRENT IS MORE COMPLEX. BETWEEN JANUARY AND MARCH, THE SW SET OF THE CURRENT TURNS NEAR THE COAST AT ABOUT 10 deg S AND AT AROUND 15 deg S BETWEEN JULY AND SEPTEMBER. FROM NOVEMBER TO APRIL, THE W SET OF THE S HALF OF THE CURRENT EXTENDS TO ABOUT 30 deg W BEFORE SETTING WSW BUT IN JUNE THE WSW SET OCCUR AT ABOUT 20 deg W AND IN SEPTEMBER AT AROUND 18 deg W.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 22 of 28

SOUTH ATLANTIC OCEAN

SEA AND SWELL: SEA WAVES ARE GENERATED LOCALLY BY THE WIND AND CAN BE VERY VARIABLE IN DIRECTION, ESPECIALLY TO THE S AND E OF 35 deg S 35 deg W. VERY ROUGH SEA OF 4m AND ABOVE ARE MOST COMMON IN THE S OF THE AREA AND, IN JULY, ARE REPORTED ON ABOUT 8 PERCENT OF OCCASIONS AT 25 deg S 35 deg W AND AROUND 38 PERCENT IN THE EXTREME SE. BY JANUARY, THE INCIDENCE OF VERY ROUGH SEAS DECREASES TO AROUND 1 PERCENT AT 25 deg S 35 deg W AND 30 PERCENT IN THE EXTREME SE. FARTHER N TOWARDS THE EQUATOR, THE PERCENTAGE OF VERY ROUGH SEAS STEADILY DECREASES TO LESS THAN 1 PERCENT OF OCCASIONS. IN THE EXTREME N OF THE AREA, VERY ROUGH SEAS ARE REPORTED ON ABOUT 2 PERCENT OF OCCASIONS BETWEEN NOVEMBER AND MARCH AND LESS THAN 1 PERCENT BETWEEN MAY AND AUGUST.

NAVTEX STATION:

NAVTEX MESSAGE GIVEN BY FRANCE THROUGH EGC

WEATHER FACSIMILE STATION:

A) RIO DE JANEIRO NAVAL

NAV/METAREAS:

A) FRANCE II

SOUTH ATLANTIC – NORTH OF BRAZIL

WEATHER: THE CLIMATE OF THE AREA VARIES GREATLY FROM N TO S REFLECTING THE LARGE RANGE OF LATITUDE, AND WITH CONSIDERABLE CONTRAST IN TEMPERATURE BETWEEN THE TROPICAL NORTH N AND THE EXTREME SW WHERE THE WINTERS ARE RELATIVELY COLD.

THE AREA MAY BROADLY DIVIDED INTO SIX REGION WITHIN THE FOLLOWING APPROXIMATE LATITUDE WITH SEASONAL MOVEMENTS TO THE N AND S.

G) THE NE TRADE WINDS IN EXTREME N OF THE AREA BETWEEN JANUARY AND MAY.

H) THE EQUATORIAL TROUGH OR DOLDRUMS – 5 deg N TO 5 deg S.

I) THE SE TRADE WINDS – 5 deg S TO 20 deg S.

J) THE SUBTROPICAL HIGH PRESSURE BELT- 20 deg S TO 35 deg S.

K) VARIABLES.

L) WESTERLIES (THE ROARING FORTIES).

TROPICAL WEATHER PREVAILS ALONG THE N COAST OF BRAZIL AND THE AMAZON BASIN WITH HIGH TEMPERATURE AND HUMIDITY THROUGHOUT THE YEAR. RAINFALL IS ABUNDANT AND EXCEEDS 2500mm IN PLACES WHICH, ON OCCASIONS, RESULT IN DISASTROUS FLOODS IN SOME INLAND PARTS OF THE REGION, ESPECIALLY BETWEEN FEBRUARY AND APRIL. IN CONTRAST, IN THE S OF THE AREA ALONG THE ARGENTINE COAST, THERE IS AN ARID BUT TEMPERATE CLIMATE WITH FREQUENT WINTER FROST, AND WITH AN ANNUAL RAINFALL AMOUNT OF AROUND 200mm NEAR THE COAST. THE E TO SE TRADE WINDS DOMINATE A WIDE AREA TO THE N OF THE HIGH PRESSURE BELT AT ABOUT 25 deg TO 35 deg S AND WITH W WINDS PREVAILING TO THE S OF 40 deg S THAT EXTEND N TO AROUND 35 deg S IN WINTER.

CURRENTS: GUIANA CURRENT ORIGINATES FROM THE BRANCH OF THE SOUTH EQUATORIAL CURRENT WHICH SETS NW ON APPROACHING THE COAST, THEN NW ALONG THE NE FACING COAST OF SOUTH AMERICA TOWARDS THE CARIBBEAN. ITS AVERAGE RATE IS BETWEEN 1 AND 1 ½ kn WITH A HIGH CONSTANCY NEAR THE GUIANAS AND NORTH BRAZIL, ON ITS N FLANK THE CURRENT IS AUGMENTED BY THE NORTH EQUATORIAL CURRENT. THE CURRENT AT THIS POINT IS SOME 200 TO 300 MILES WIDE AS IT PARALLEL THE COAST. THE RATE IS STRONGEST ABOUT 50 TO 150 MILES OFFSHORE BETWEEN 45 deg AND 55 deg W WITH AN AVERAGE RATE OF AROUND 2 kn, ALTHOUGH RATES OF 4 kn HAVE BEEN REPORTED ON SOME OCCASIONS ESPECIALLY BETWEEN JULY AND SEPTEMBER. BETWEEN THE MONTHS OF THE RIO AMAZONAS AND CABO DE SAO ROQUE, WITH NE WINDS, A COASTAL COUNTER CURRENT SETTING ESE IS POSSIBLE.

SOUTH EQUATORIAL CURRENT, THIS CURRENT SETS TO THE W BETWEEN ABOUT 2 deg N AND 20 deg S BUT, IN MARCH, THE N LIMIT MAY EXTEND ON OCCASIONS TO AROUND 5 deg N. THE AVERAGE RATE IN THE N IS ABOUT ¾ kn IN MOST MONTHS WITH A HIGH CONSTANCY. BETWEEN MAY AND SEPTEMBER, THE AVERAGE RATE INCREASE TO AROUND 1 kn WITH A FEW REPORTS OF RATES BETWEEN 2 AND 3 kn. TO THE S OF 6 deg S THE AVERAGE RATE DECREASES TO AROUND ½ kn, AND THE CONSTANCY OF THE CURRENT BECOMING LOW NEAR 20 deg S BETWEEN JANUARY AND MARCH, AND 15 deg S BETWEEN JULY AND SEPTEMBER.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 23 of 28

SOUTH ATLANTIC – NORTH OF BRAZIL

FROM NOVEMBER TO JANUARY, THE PREDOMINANTLY W CURRENT DIVIDES AT ABOUT 6 deg S 30 deg W WITH ONE BRANCH SETTING WNW TOWARDS THE CARIBBEAN AND THE OTHER SETTING SW T O FROM THE BRAZILIAN CURRENT. THE CURRENT DIVIDES FARTHER S AT OTHER TIMES OF THE YEAR AND BETWEEN MAY AND JULY THE DIVISION IS NEAR 8 deg S. NEAR THE COAST THE SET OF THE CURRENT IS MORE COMPLEX. BETWEEN JANUARY AND MARCH, THE SW SET OF THE CURRENT TURNS NEAR THE COAST AT ABOUT 10 deg S AND AT AROUND 15 deg S BETWEEN JULY AND SEPTEMBER. FROM NOVEMBER TO APRIL, THE W SET OF THE S HALF OF THE CURRENT EXTENDS TO ABOUT 30 deg W BEFORE SETTING WSW BUT IN JUNE THE WSW SET OCCUR AT ABOUT 20 deg W AND IN SEPTEMBER AT AROUND 18 deg W.

SEA AND SWELL: SEA WAVES ARE GENERATED LOCALLY BY THE WIND AND CAN BE VERY VARIABLE IN DIRECTION, ESPECIALLY TO THE S AND E OF 35 deg S 35 deg W. VERY ROUGH SEA OF 4m AND ABOVE ARE MOST COMMON IN THE S OF THE AREA AND, IN JULY, ARE REPORTED ON ABOUT 8 PERCENT OF OCCASIONS AT 25 deg S 35 deg W AND AROUND 38 PERCENT IN THE EXTREME SE. BY JANUARY, THE INCIDENCE OF VERY ROUGH SEAS DECREASES TO AROUND 1 PERCENT AT 25 deg S 35 deg W AND 30 PERCENT IN THE EXTREME SE. FARTHER N TOWARDS THE EQUATOR, THE PERCENTAGE OF VERY ROUGH SEAS STEADILY DECREASES TO LESS THAN 1 PERCENT OF OCCASIONS. IN THE EXTREME N OF THE AREA, VERY ROUGH SEAS ARE REPORTED ON ABOUT 2 PERCENT OF OCCASIONS BETWEEN NOVEMBER AND MARCH AND LESS THAN 1 PERCENT BETWEEN MAY AND AUGUST. SWELL ROSES FOR JANUARY AND JULY. THE ROSES SHOW THE PERCENTAGE OF OBSERVATIONS RECORDING SWELL FROM A NUMBER OF DIRECTIONS AND FOR VARIOUS RANGES OF WAVE HEIGHT. TO THE N OF THE EQUATOR, AND WITHIN THE AREA THE PREDOMINANT SWELL IS NE LOW TO MODERATE IN JANUARY, AND MAINLY SE IN JULY. BETWEEN THE EQUATOR AND 20 deg S THE SWELL IS MAINLY LOW FROM THE ESE IN JANUARY AND 20 deg S IN JULY. FARTHER S, BETWEEN 20 deg AND 30 deg S, THE SWELL IS ALSO USUALLY LOW AND MAINLY FROM BETWEEN NNE AND S BUT WITH AN INCREASING FREQUENCY OF SWELL FROM THE SSW BY JULY. HEAVY SWELLS ARE RARE TO THE N OF 25 deg S.

NAVTEX STATION:

NAVTEX MESSAGE GIVEN BY BRAZIL THROUGH EGC

WEATHER FACSIMILE STATION:

A) RIO DE JANEIRO NAVAL

NAV/METAREAS:

A) BRAZIL V

CARIBBEAN SEA

WEATHER: THE S OF THE AREA, INCLUDING THE E PART OF THE CARIBBEAN SEA, IS HOT AND HUMID THROUGHOUT THE YEAR. HOWEVER, MODERATE TO FRESH TRADE WINDS BLOW FROM BETWEEN E AND NE WITH GREAT PERSISTENCE IN ALL SEASONS AND ALLEVIATE THE DISCOMFORTS OF A TROPICAL CLIMATE IN THOSE LOCALITIES EXPOSED TO THE BREEZE.

THE ISLANDS EXPERIENCE CONSIDERABLE RAINFALL THROUGHOUT THE YEAR, ESPECIALLY ON THE WINDWARD COAST, WHICH MAINLY FALLS IN SHOWERS. MOST OF THE RAINFALL OCCURS IN THE "WET" SEASON BETWEEN MAY AND DECEMBER WHILST FEBRUARY TO APRIL IS REGARDED AS THE "DRY" SEASON.

AT SEA THE WEATHER IS GENERALLY FAIR WITH BROKEN CLOUD. CLOUDY PERIODS AND SHOWERS BECOME MORE WIDESPREAD IN SUMMER AND AUTUMM WHEN THE INTER TROPICAL CONVERGENCE ZONE (ITCZ) IS CLOSE TO THE S LIMIT OF THE AREA. FOG IS RARE AND VISIBILITY IS GENERALLY GOOD EXCEPT IN SHOWERS

AT SEA THE WEATHER IS GENERALLY FAIR WITH BROKEN CLOUD. CLOUDY PERIODS AND SHOWERS BECOME MORE WIDESPREAD IN SUMMER AND AUTUMM WHEN THE INTER TROPICAL CONVERGENCE ZONE (ITCZ) IS CLOSE TO THE S LIMIT OF THE AREA. FOG IS RARE AND VISIBILITY IS GENERALLY GOOD EXCEPT IN SHOWERS.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 24 of 28

CARIBBEAN SEA

SEA AND SWELL: MOUNTAINOUS AND CONFUSED SEAS ARE RAISED BY THE VIOLENT WINDS ASSOCIATED WITH TOPICAL STORMS AND HURRICANES. NEAR THE CENTRE OF A STORM, GROUPS OF LARGE WAVES MOVING IN DIFFERENT DIRECTIONS, CREATE VERY IRREGULAR WAVE HEIGHTS AND CAN COMBINE TOGETHER TO FORM EXCEPTIONALLY HIGH WAVES OF AROUND 30 m. WAVES TRAVEL RADIALLY OUTWARDS FROM THE CENTRE AS WELL WAVES, AND WITH THE HIGHEST SWELL MOVING AHEAD OF THE STORM AND ROUGHLY IN THE SAME DIRECTION AS THE STORM. LONG PERIOD SWELL MY INDICATE THE APPROACH OF A TROPICAL STORM, AND WITH INCREASING HEIGHT AS THE STORM NEARS THE AREAS.

WHEN THE STORM APPROACHES A COASTLINE, HIGH TIDES MAY OCCUR, OWING TO THE ADDITION OF THE HEAVY SWELL AND LATER THE VERY HIGH SEAS. OCCASIONALLY AN EXCEPTIONALLY HUGE WAVE OR "WALL OF WATER", SOME 6 TO 7 m HIGH, MAY RACE IN FROM THE SEA WITH CATASTROPHIC CONSEQUENCES IN LOW LYING AREAS.

CURRENTS: SOUTH EQUATORIAL CURRENT, THIS CURRENT FLOWS PREDOMINANTLY WNW THROUGH THE WINDWARD ISLANDS AND LEEWARD ISLANDS INTO THE CARIBBEAN SEA, WHERE IT JOINS THE S BRANCH OF THE NORTH EQUATORIAL CURRENT AND IS BETTER KNOWN AS THE EQUATORIAL CURRENT. EQUATORIAL CURRENT, WHICH IS FORMED FROM THE SOUTH EQUATORIAL CURRENT AND THE S PART OF THE NORTH EQUATORIAL CURRENT WHERE THEY ENTER THE CARIBBEAN SEA, FLOWS IN A W DIRECTION S OF THE ISLAND OF HISPANIOLA AND JAMAICA AND THEN FLOWS NW INTO THE GULF OF MEXICO. THIS CURRENT IS SOMETIMES KNOWN AS THE CARIBBEAN CURENT.

TIDAL STREAMS: TIDAL STREAM WHICH SET THROUGH THE MANY CHANNELS BETWEEN THE ISLANDS ARE MOSTLY WEAK, WITH RATES SELDOM EXCEEDING 1 kn. THESE ARE GREATLY AFFECTED, BOTH BY ISLAND TOPOGRAPHY AND BY THE VARIABLE CURRENTS WHICH, IN GENERAL, SET INTO THE CARIBBEAN SEA FROM THE ATLANTIC OCEAN. THUS THE RESULT FLOW INTO THE CARIBBEAN SEA CAN, FOR THE MOST PART, BE EXPECTED TO HAVE A GREATER RATE AND LONGER DURATION THAN THAT SETTING OUTWARDS. LOCAL EFFECTS, WHERE THEY ARE KNOWN, ARE DESCRIBED IN THE APPROPRIATE PLACE IN THE BODY OF THE BOOK.

NAVTEX STATION:

- A) SAN JUAN (R)
- B) CURACAO (H)

WEATHER FACSIMILE STATION:

- A) NEW ORLEANS
- B) BOSTON (NMF)

NAV/METAREAS:

- A) USA IV

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 25 of 28

GULF OF MEXICO

WEATHER: OVER THE S TROPICAL HALF OF THE AREA MODERATE TO FRESH E TO NE TRADE WINDS PREVAIL AT SEA FOR MOST OF THE YEAR. TO THE N THE WINDS ARE MORE VARIABLE BUT, IN SUMMER, THE WINDS ARE MAINLY LIGHT TO MODERATE FROM BETWEEN E AND S. IN WINTER, OCCASIONAL GALE FORCE WINDS MAY AFFECT THE REGION BUT PARTICULARLY IN THE NW AND THE EXTREME SE OF THE AREA.

THERE IS MUCH CLEAR AND SUNNY WEATHER OVER THE WHOLE OF THE SEA AREA. TO THE S, THE WET SEASON LAST FROM MAY TO DECEMBER WITH FREQUENT HEAVY RAIN AND THUNDERSTORMS. IN THE N, THE AUTUMM AND WINTER MONTHS ARE GENERALLY THE DRIEST BUT WITH MORE CLOUDY PERIODS.

THE HURRICANE SEASON: NORMALLY LAST FROM JUNE TO NOVEMBER WITH THE MAJORITY OF TROPICAL STORMS MOVING INTO THE AREA FROM THE E, THEN VEERING N OR NE. OVER THE AREA HURRICANE ARE RARE TO THE S OF 12 deg N AND WITH ONLY FEW, IN ANY SEASON, EVER REACHING THE W COAST OF GULF OF MEXICO.

THE WHOLE OF THE AREA ARE IS GENERALLY WARM OR HOT ALTHOUGH FROST AND SNOW CAN OCCUR AT TIMES ALONG THE N COAST OF GULF OF MEXICO, WHEN SEVERE WINTRY WEATHER MOVES S DUE TO THE INTENSIFICATION OF THE NORTH AMERICAN ANTICYCLONE

SEA AND SWELL: MOUNTAINOUS AND CONFUSED SEAS ARE RAISED BY THE VIOLENT WINDS ASSOCIATED WITH TOPICAL STORMS AND HURRICANES. NEAR THE CENTRE OF A STORM, GROUPS OF LARGE WAVES MOVING IN DIFFERENT DIRECTIONS, CREATE VERY IRREGULAR WAVE HEIGHTS AND CAN COMBINE TOGETHER TO FORM EXCEPTIONALLY HIGH WAVES. WAVES TRAVEL RADIALLY OUTWARDS FROM THE CENTRE AS WELL WAVES, AND WITH THE HIGHEST SWELL MOVING AHEAD OF THE STORM AND ROUGHLY IN THE SAME DIRECTION AS THE STORM. LONG PERIOD SWELL MY INDICATE THE APPROACH OF A TROPICAL STORM, AND WITH INCREASING HEIGHT AS THE STORM NEARS THE AREAS.

WHEN THE STORM APPROACHES A COASTLINE, HIGH TIDES MAY OCCUR, OWING TO THE ADDITION OF THE HEAVY SWELL AND LATER THE VERY HIGH SEAS. THESE TIDES MAY CAUSE SEVERE FLOODING IN LOW-LYING AREAS. IN EXTREME CASES, AN EXCEPTIONALLY HUGE WAVE, SOME 6 TO 7 m HIGH, MAY PRECEDE THE STORM CENTRE WITH CATASTROPHIC CONSEQUENCES.

CURRENTS: THE NORTH EQUATORIAL CURRENT AND THE GUIANA CURRENT FLOWS W OR NW THROUGH WINDWARD AND LEEWARD ISLANDS AND ENTERS CARIBBEAN SEA TO BECOME THE EQUATORIAL CURRENT OR SOMETIMES CALLED THE CARIBBEAN CURRENT. THIS CURRENT CONTINUES W OR NW THROUGH THE CARIBBEAN AND THEN STRONGLY NW OR NNE THROUGH YACUTAN CHANNEL TO FAN OUT INTO GULF OF MEXICO. AFTER CIRCULATING THE GULF BY VARIOUS ROUTES THE WATER FLOWS STRONGLY E BETWEEN CUBA AND FLORIDA KEYS AS THE FLORIDA CURRENT AND TURNS N BETWEEN FLORIDA AND GREAT BAHAMAS BANK. IT IS THEN JOINED IN THE NEIGHBOURHOOD OF BAHAMAS BANKS BY THE WATERS OF THE ANTILLES CURRENT AND BECOMES THE GULF STREAM. IN THE CARIBBEAN SECTOR COUNTER CURRENTS OCCUR ALONG N-FACING COASTS. IN GENERAL THERE IS LITTLE SEASONAL VARIATION, BUT WHAT LITTLE THERE IS WILL BE OUTLINED IN THE TEXT THUS REPRESENTS THE GENERAL PREDOMINANT CURRENT CIRCULATION THROUGHOUT THE YEAR.

YUCATAN CHANNEL: THE GREATER PART OF THE FLOW OF WATER ACROSS THE CARIBBEAN SEA IS CONSTRAINED TO FLOW THROUGH YUCATAN CHANNEL TOWARDS GULF OF MEXICO. THE W BOUNDARY OF THE CURRENT THROUGH THIS CHANNEL IS CAMPECHE BANK AND THE EAST BOUNDARY LIES SOME 25 MILES WSW OF CABO SAN ANTONIO IN W CUBA. AT 10 MILES ENE OF ISLA CONTOY THE AVERAGE RATE IS ABOUT 1 kn, AT 25 MILES ABOUT 4 kn, 35 MILES ABOUT 3 kn, 45 MILES ABOUT 2 kn AND 60 MILES (45 MILES FROM CABO SAN ANTONIO) ABOUT 1 kn. ALTHOUGH RATES MAY FALL SOMEWHAT IN LAT AUTUMM AND EARLY WINTER, MORE ESPECIALLY W OF 86 deg W, THERE IS LITTLE OVERALL CHANGE THROUGH THE YEAR. APART FROM THE SEASONAL VARIATION THERE IS A MARKED DAILY VARIATION. THE DAILY MAXIMUM OCCURS ABOUT 9 HOURS BEFORE THE MOON TRANSIT OF THE MERIDIAN. ON ONE OCCASION THE RATE INCREASES BY NEARLY 3 kn IN 5 HOURS AND DECREASED TO THE ORIGINAL IN THE NEXT 9 HOURS. ON ANOTHER OCCASION IT INCREASED BY 3 ½ kn IN 5 HOURS. THE DAILY VARIATION IS MORE MARKED ON THE W SIDE OF THE CHANNEL THAN ON THE E SIDE. SOME SETS SLIGHTLY IN EXCESS OF 5 \KN HAVE BEEN EXPERIENCED IN A N DIRECTION WITHIN THE CHANNEL AND IN A N TO NW DIRECTION WITHIN GULF OF MEXICO.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 26 of 28

GULF OF MEXICO: THE STRONGEST CURRENT SETTING THROUGH YUCATAN CHANNEL FANS OUT IN ALL DIRECTIONS BETWEEN W, THROUGH N AND E WITH MARKED DECREASE IN CONSTANCY AND RATE AS IT PASSES INTO THE GULF. THE FANNING OUT OF THE MAIN CURRENT RESULTS IN THE FORMATION OF THREE MAIN BRANCHES WHICH ARE OF MOSTLY MODERATE OR LOW. THE W-GOING BRANCH SETS ACROSS CAMPECHE BANK S OF AROUND 24 deg N, ROUNDS YUCATAN PENINSULA AND CROSSES GOLFO DE CAMPECHE. BETWEEN ABOUT 24 deg N AND 21 deg N THE AVERAGE RATES ARE USUALLY ½ TO 1 ½ kn, BUT S OF 21 deg N THE CURRENT IS OF VERY CONSTANCY WITH AVERAGE IN ORDER OF ½ kn. SOUTH-GOING SETS OF ABOUT ¾ kn OCCUR IN ASSOCIATION WITH "NORTHERS" .

TIDAL STREAM: THE BEHAVIOUR OF THE TIDES IS REFLECTED IN THAT OF THE TIDAL STREAM. THEY ARE, IN GENERAL, VERY WEAK THROUGHOUT THE AREA AND ARE SUBJECT TO CONSIDERABLE DIURNAL INEQUALITY. IN MANY PLACES, WHEN THE MOON'S DECLINATION IS HIGH, N OR S, THERE IS ONLY ONE TIDAL STREAM EACH WAY IN THE DAY, WHICH RUNS FOR ABOUT 12 HOURS CONTINUALLY IN THE ONE DIRECTION BEFORE TURNING TO THE OTHER DIRECTION.

AS GENERAL RULE, THE TIDAL STREAMS OFFSHORE SET TO THE N AND W ON THE RISING TIDE AND VICE-VERSA ON THE FALLING TIDE, THOUGH NEIGHBOURING COAST WILL GREATLY MODIFY THE DIRECTION IN ANY PARTICULAR LOCALITY.

NAVTEX STATION:

- A) MIAMI (A)
- B) NEW ORLEANS (G)

WEATHER FACSIMILE STATION:

- A) NEW ORLEANS
- B) BOSTON (NMF)

NAV/METAREAS:

- A) USA IV

LOOP

LOCATION: LOUISIANA OFFSHORE OIL PORT IS DEEP WATER PORT DESIGNED FOR UNLOADING CRUDE OIL CARGOES FROM DEEP DRAFT TANKERS. THE TERMINAL LOCATED IN OPEN WATERS OF THE GULF OF MEXICO APROXIMATELY 18 N.M FROM OFFSHORE

WEATHER: LOOP MARINE TERMINAL IS LOCATED IN A SEMI-TROPICAL ZONE. AVERAGE SUMMER TEMPERATURE IS 29C AND AVERAGE WINTER TEMPERATURE IS 14C. THUNDERSTORMS IN SUMMER AND COLD FRONTS IN WINTER DEVELOPED QUICKLY AND CAN BE QUITE SEVERE WITH STORM WINDS DEVELOPING FOR SHORT PERIODS. THE TERMINAL IS IN A HURRICANE ZONE AND ALLTHOUGH SUCH STORMS ARE AN INFREQUENT OCCURRENCE AT THE PORT THE AREA IS OFTEN AFFECTED ADVERSELY BETWEEN THE MONTH OF JUNE AND NOVEMBER BY HURRICANES PASSING EAST OR WEST. POOR VISIBILITY OCCURS MOST OFTEN IN JANUARY WHEN VISIBILITY OF TWO NAUTICAL MILES OR LESS OCCURS TWO PERCENT OF THE TIME. LOOP ALSO HAVE WEATHER AND SEA MONITORING EQUIPMENT AND RECEIVE NOAA WEATHER ADVISORIES AND UPON REQUEST WEATHER INFORMATION WILL BE TRANSMITTED TO TANKERS IN VICINITY

PRE ARRIVAL INFORMATIONS: TWO RADAR SURVEILLANCE SYSTEM S&X BAND ARE INSTALLED AT THE MARINE TERMINAL. THE SYSTEM PROVIDE COVERAGE FROM THE PLATFORM COMPLEX TO A RANGE 27 NM. INCOMING TANKER MAKES RADIO CONTACT "LOOP RADAR" ON THE VHF CH. 74 ABOUT 20NM FROM THE SAFETY ZONE THE TRAFIC CONTROLLER WILL ADVISE OF THE LOCATION OF NAVIGATIONAL HAZARDS AND ALL OTHER INFORMATIONS. THIS VHF CH SHOULD BE USE FOR COMUNICATION BY TERMINAL UNTILL MOORING MASTER BOARD THE VESSEL

APPROACHES SAFETY FAIRWAY: THE LOOP SAFETY FAIRWAY HAS NO MARKER BUOY AND LESSEN TO CHANCE OF ACCIDEND SHIPS ENTER AND LEAVE UNITED STATES GULF COAST PORTS . THE FAIRWAY ARE 2.0 NM WIDE.

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 27 of 28

ANCHORAGE: THE DESIGNATED ANCHORAGE SECTION OF THE SAFETY ZONE IS A 2 NM WIDE AREA BEGINNING AT SAFETY ZONE BUOY No.2 AND EXTENDING 4 NM ALONG AND NEXT TO THE EASTWARD BOUNDARY OF THE SAFETY ZONE BUOYS L-B AND L-A MARK THE CORNERS

MAX DRAFT: THE MAXIMUM DRAFT IN SPM No.102 AND 104 IS 35.1 MTRS AND IN SPM No.103 IS 35.7 MTRS DURING GOOD WEATHER THE MINIMUM UNDER KEEL CLEARANCE IS 2.9 MTRS. DURING BAD WEATHER THE MINIMUM UNDER KEEL CLEARANCE INCREASED TO 4.7 MTRS

TIDAL RANGE AND STREAM: CURRENTS TAKE A GENERALLY WESTERLY DIRECTION 75% OF THE TIME. AVERAGE CURRENT SPEED IS 0.72 KNOTS, BUT 3% OF THE TIME THE CURRENT CAN REACH A SPEED OF 2 KNOTS OR MORE.

TUGS: TWO LAUNCHES ARE OPERATED BY LOOP FOR THE ASSISTING AND MOORING OPERATIONS. EACH BOAT IS 26 MTRS LENGTH, MAX SPEED 10 KNTS, AND BOLLARD PULL 3629 KG.

COMMUNICATION:

- 1) LOOP VTS VHF CH. 16, 10, 74
- 2) PILOTS VHF CH. 16, 10, 74
- 3) TERMINAL: VHF CH. 16, 10, 74
- 4) FOR FURTHER INFORMATIONS SEE ADMIRALTY LIST OF RADIO SIGNALS VOL. 6(5)

TIME ZONE: LOOP, NEW ORLEANS UTC - 5 HRS

NAVTEX STATION:

- A) MIAMI (A)
- B) NEW ORLEANS (G)

WEATHER FACSIMILE STATION:

- A) NEW ORLEANS
- B) BOSTON (NMF)

NAV/METAREAS:

- A) USA IV

Note: When passing straits (e.g. Gibraltar, Bosphorus) the currents (set and rate) have to be calculated.

PASTORFIDE ARIEL

2nd Officer

Name / Signature

PAPADOPOULOS P.

Master

Check Lists
Issued by: S & Q Dept.
Checklist: SQ/09

Issue Date : 11.2008
Revision No./ Date : 2 / 02.2011
Page : 28 of 28